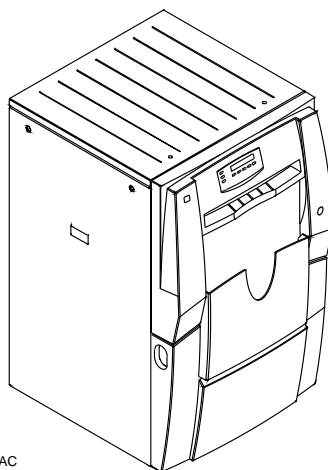


INSTALLATION INSTRUCTIONS
for the
***Kodak X-Omat* MULTILOADER 7000**
Service Code: 3444
and the
***Kodak X-Omat* 3000 RA INTEGRATED PROCESSOR**
Service Code: 3466
and the
***Kodak X-Omat* MULTILOADER 7000 DARKROOM FILM**
FEEDER
Service Code: 3429



Important

- For the use of qualified service personnel only.
- Qualified service personnel must install this equipment.



H186_1000AC



PLEASE NOTE

The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

No patent license is granted by this information.

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This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

**Warning**

To avoid hazardous conditions, keep floors and floor covering around your MULTILOADER and associated drains clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc., should be cleaned up immediately. In the event of an accumulation of liquid due to backup, overflow or other malfunctions of the drain associated with your PROCESSOR, call a plumber or other contractor to correct any problem with the drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with a MULTILOADER. Such drains are the sole responsibility of the customer.

**Caution****Radio Interference**

This equipment generates, uses, and can radiate radio-frequency energy. If the equipment is not installed and used according to the instructions, it might cause interference to radio communications. The equipment has been tested and found to comply with the limits for a *Class A* computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at the user's own expense, will be required to take whatever measures might be required to correct the interference.

This digital apparatus does not exceed the *Class A* limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

**Caution**

To avoid a partial reset and possible equipment malfunction, always press “**CLEAR**” on the DISPLAY PANEL or de-energize and energize the MULTILOADER to reset the MULTILOADER. Do not use the RESET BUTTONS on the BOARDS.

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Section 1: Prerequisites

Special Tools



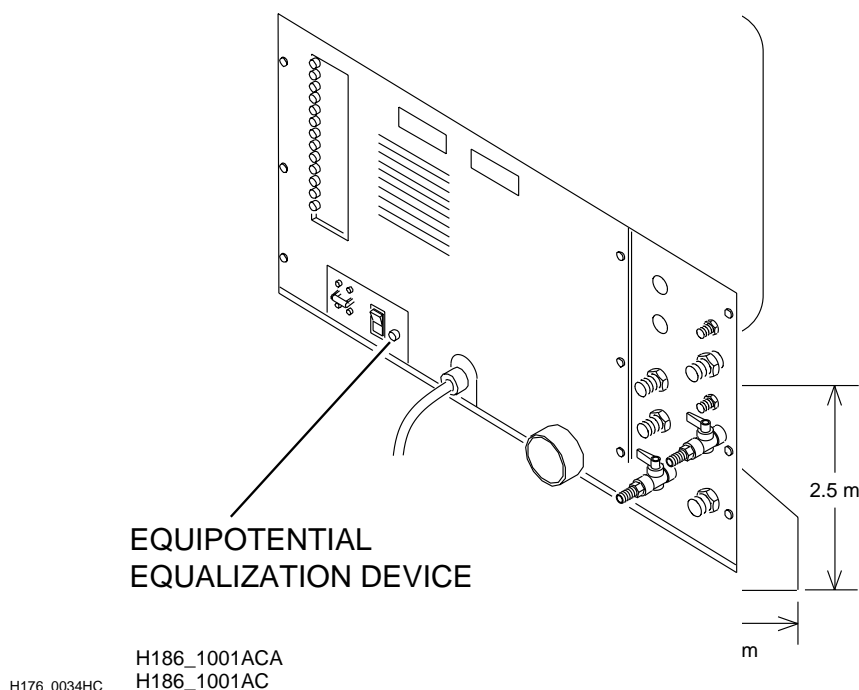
Important

- All tools must be available before installation.
- If the customer uses 15 x 30 film, order the 15 x 30 MAGAZINE KIT, 4E8247.

AIR METER	TL-2431
BLOW PIPE POSITIONER CASSETTE	TL-4830
BLOW PIPE POSITIONER MAGAZINE	TL-4582
CARPENTERS LEVEL	TL-1434
SERVICE SOFTWARE - latest version	G9903843
DATA CABLE	TL-4391
DENTIST MIRROR	TL-2753
ESD KIT	TL-3346
EXTRACTION TOOL	TL-1580
EXTRACTION TOOL	TL-1654
GREASE	TL-2247
IC CIRCUIT SURFACE MOUNT EXTRACTION TOOL	TL-4430
INTERLOCK KEY	9901918
LAPTOP COMPUTER	purchased locally
LAPTOP DATA CABLE	TL-4391
LOGIC PEN	TL-3008
METRIC <i>Allen</i> SET	TL-2764
METRIC OPEN END WRENCH 5.5 mm	TL-1936
METRIC OPEN END WRENCH SET	TL-2765
METRIC SOCKET WRENCH SET	G9901934
REPLENISHER CHECK TUBE	592380
SLING PSYCHROMETER	TL-2635
TEMPLATE CASSETTE LID TYPE 2	9194501
THICKNESS GAUGE	TL-2372
<i>Torx</i> KEY SET	TL-3261
VERNIER CALIPER	TL-1727

Section 2: Electrical Safety

Electrical Safety - Europe Only



The MULTILOADER 7000 is non-patient contact equipment, and must not enter the patient environment, as defined by EN 60 601-1-1. However, according to European safety regulations for medical devices, if the MULTILOADER 7000 is operated in a patient area less than 1.83 m (6 ft), the EQUIPOTENTIAL EQUALIZATION DEVICE, PLUG, on the MULTILOADER 7000 must be connected with a CABLE to the EQUIPOTENTIAL EQUALIZATION GROUNDING SYSTEM for the site. The CONNECTING CABLE and the EQUIPOTENTIAL EQUALIZATION DEVICE, SOCKET, must be provided by the customer.

- [1] Check the electrical safety of the MULTILOADER 7000 after installation. Follow your local regulations and check that all PANELS are installed correctly.

Safety Precautions



Warning

- Before you move the PROCESSOR into the MULTILOADER 7000 move your hands away from the STOP BRACKET. Place both hands into the openings of the LEFT and RIGHT LATCHES on the PROCESSOR.
- Do not install the MULTILOADER 7000 close to equipment producing a strong magnetic field. There are MAGNETIC REED CONTACTS in the INTERLOCK SYSTEM of the MULTILOADER 7000, which may be defeated by any external strong magnetic field.
- The MULTILOADER 7000 generates, uses and can radiate radio frequency energy. If not installed correctly, this MULTILOADER 7000 may cause interference to radio communications and other electronic devices. Operation of this equipment in any residential area may cause interference.
- The MULTILOADER 7000 is not equipped with a DISCONNECTING DEVICE that allows disconnection of all poles from the MAIN ELECTRICAL SOURCE.
- You must install a LOCKING TYPE MAINS CIRCUIT BREAKER to disconnect all phases and neutral line of the the MAIN ELECTRICAL SOURCE. The access to the MAINS CIRCUIT BREAKER must be easy.
- For the rating and number of poles of the CIRCUIT BREAKER, see the table on Page [25](#).
- Use a SAFETY GROUND WIRE for all services.
- Do not install an EXTENSION CORD to connect the main power.

INSTALLATION INSTRUCTIONS

- Check that the neutral line for the MULTILOADER 7000 is not fused.
- Do not place the POWER CORD in a position where a person could fall or disconnect the POWER CORD.
- If the MULTILOADER 7000 is:
 - connected with a flexible LINE CORD and a PLUG, the WALL OUTLET should be located close to the equipment and easily accessible
 - hard wired to the MAIN ELECTRICAL SOURCE, install a DISCONNECTING DEVICE, a MAINS CIRCUIT BREAKER with a contact gap of > 3 mm (0.11 in.) of each POLE. This will disconnect all phases and the neutral line of the main electrical source and must comply with UL/CSA/IEC requirements.

Additional Service Procedures

Safety



Important

You must do these safety procedures:

- when any replacement occurs of an electrical component
- using special measuring equipment

Checking the Ground Resistance



Warning

Dangerous Voltage

- [1] Disconnect the main power.
- [2] Check that the resistance is ≤ 200 milliohms between the GROUND TERMINAL in the POWER SUPPLY and any metal surfaces of all electrical components, PANELS, COVERS and FRAMES.

Checking the $M\Omega$ Resistance between Phases and Ground



Warning

Dangerous Voltage

- [1] Disconnect the main power at the wall.



Important

The main power **must** remain disconnected for this procedure.

- [2] On the MULTILOADER 7000, move:
 - 2 CIRCUIT BREAKS to the “I” position
 - POWER SWITCH to the “I” position



Important

You must manually hold the CONTACTOR closed during this procedure.

- [3] Insert an insulated tool through the top center of the CONTACTOR in the POWER SUPPLY. Press the tool down to hold the contacts closed.
- [4] Check that the resistance between all phases L1, L2, L3, N and ground or PE is $\geq 2 M\Omega$.

Checking the Leakage Current



Warning

Dangerous Voltage

- [1] Disconnect the main power at the wall.



Note

The main power **must** remain disconnected for this procedure.

- [2] On the MULTILoader 7000, move:
- 2 CIRCUIT BREAKS to the “I” position
 - POWER SWITCH to the “I” position



Important

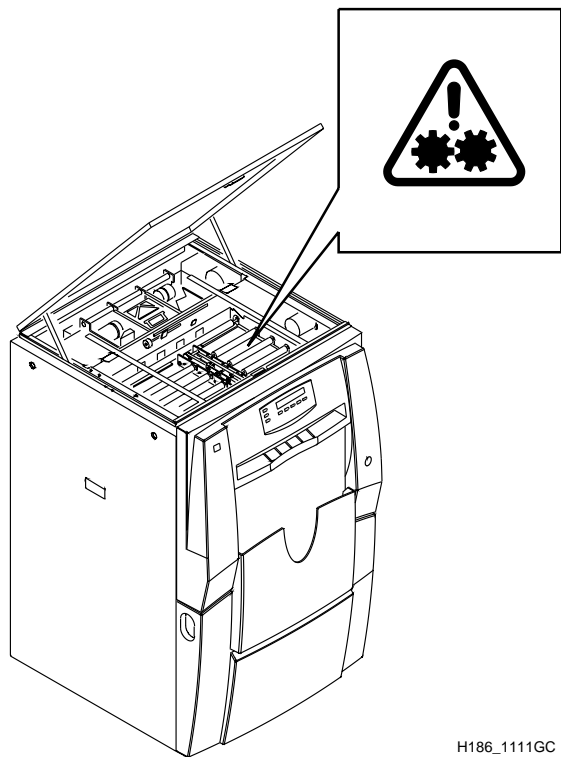
You must manually hold the CONTACTOR closed during this procedure.

- [3] Insert an insulated tool through the top center of the CONTACTOR in the POWER SUPPLY. Press the tool down to hold the contacts closed. The resistance must be A.
- [4] Check that the leakage current between all phases, L1, L2, L3, N and ground or PE is:
- ≤ 7.0 milliamperes for a hard wire connection
 - ≤ 3.5 milliamperes for a connection using a PLUG

Checking the INTERLOCK SWITCHES

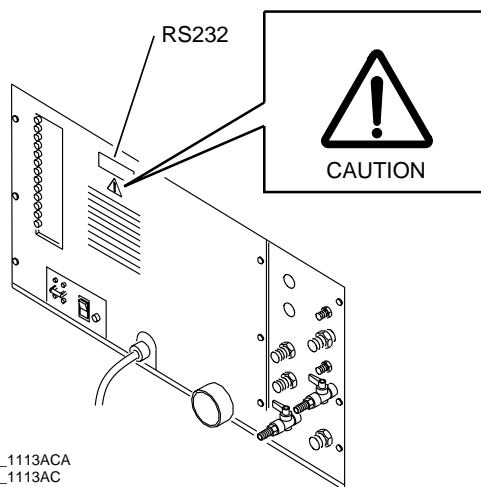
- [1] Check that the following SWITCHES operate correctly:
- MAGAZINE DOOR INTERLOCK
 - TOP COVER INTERLOCK
 - PROCESSOR INTERLOCK
- [2] Check the condition and location of all wires.

Warning and Caution Symbols



Warning

The “Mechanical Hazard” symbols indicates there is a mechanical hazard if the SAFETY INTERLOCK SYSTEM is bridged from the qualified service personnel during maintenance or repairs.

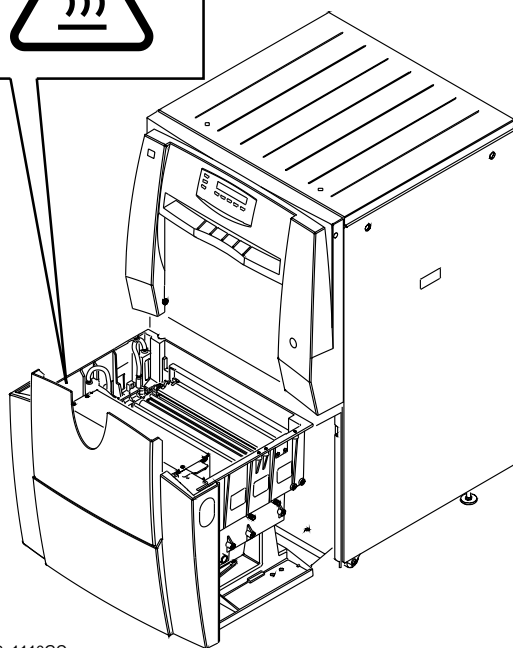


Caution

The symbol below the RS232 CONNECTOR indicates “For the use of qualified service personnel only.”

**Warning**

The “Hot Surface” symbol indicates this area is hot.



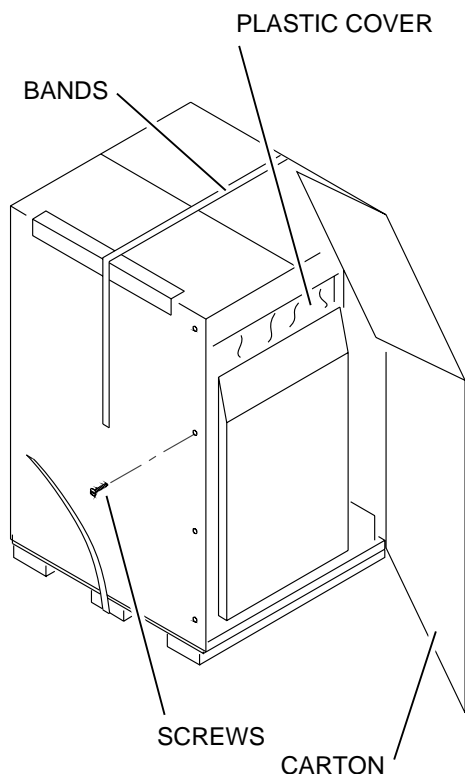
H186_1110GC

Hazards

**Caution**

- Gloves and protective eye wear must be worn when working with the chemistry for the PROCESSOR. If the chemistry for the PROCESSOR gets in your eyes, flush them thoroughly with water. If irritation persists, check with a doctor.
- Chemistry spills outside the equipment must be cleaned up immediately. The chemistry can contaminate waste water and irritate the skin, especially the eyes. If a chemical spill occurs, do the following:
 1. Prevent the spilled chemistry from entering the DRAIN.
 2. Clean up the spill with a moist mop or rag.
 3. Dispose of cleaning materials and collected waste water in an environmentally approved way.
 4. Drain the chemicals into provided containers and dispose of according to local regulations.

Section 3: Unpacking the MULTILOADER 7000



H186_1002GCA
H186_1002GC



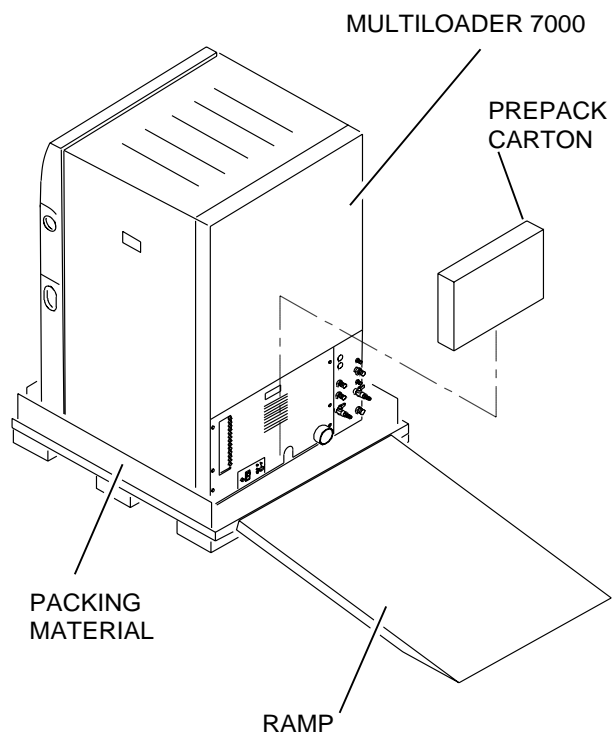
Important

A minimum clearance of 3.1 m (10 ft) is required.

[1] Cut and remove the BANDS.

[2] Remove:

- SCREWS
- TAPE - not visible in graphic
- CARTON
- PLASTIC COVER



H186_1003GCA
H186_1003GC

[3] Pull the RAMP down to the floor.

[4] Remove:

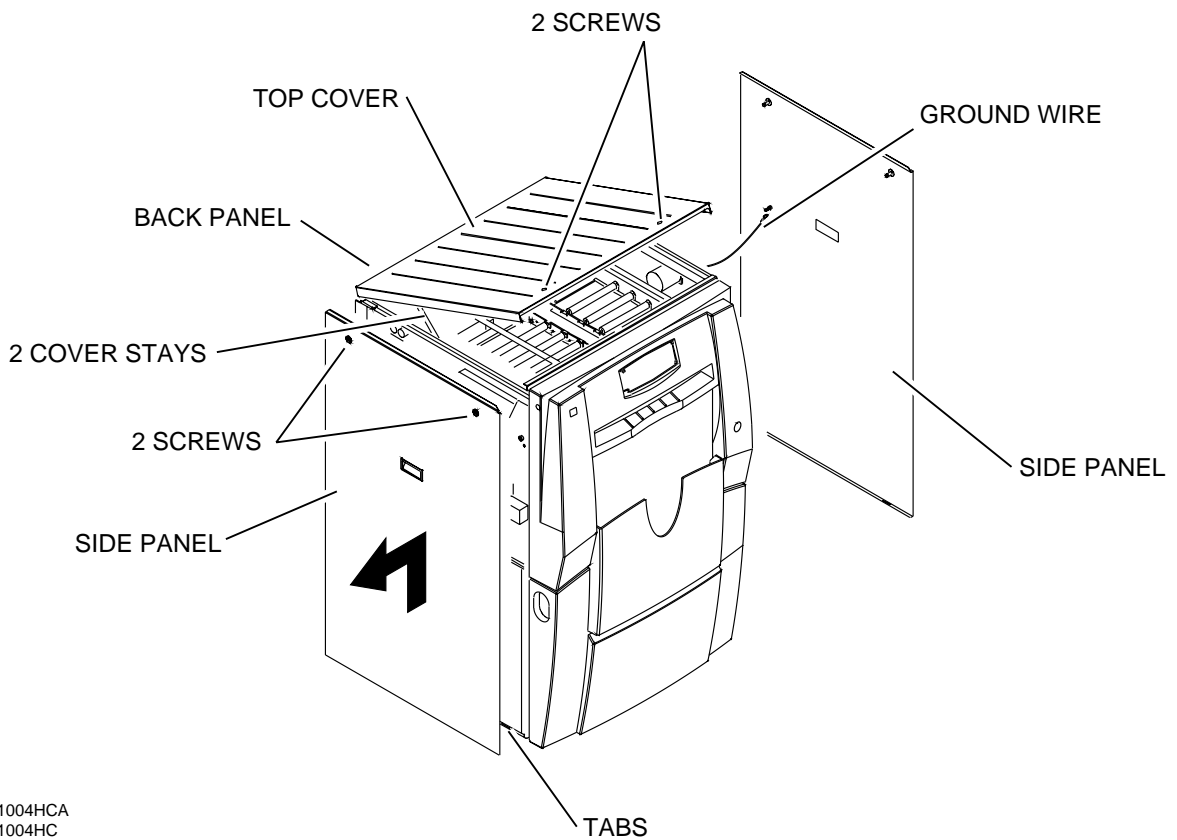
- PACKING MATERIAL
- PREPACK CARTON



Warning

Use caution when moving the MULTILOADER 7000 down the RAMP. The MULTILOADER 7000 weighs 470 kg (1037 lbs).

[5] Move the MULTILOADER 7000 down the RAMP.



H186_1004HCA
H186_1004HC



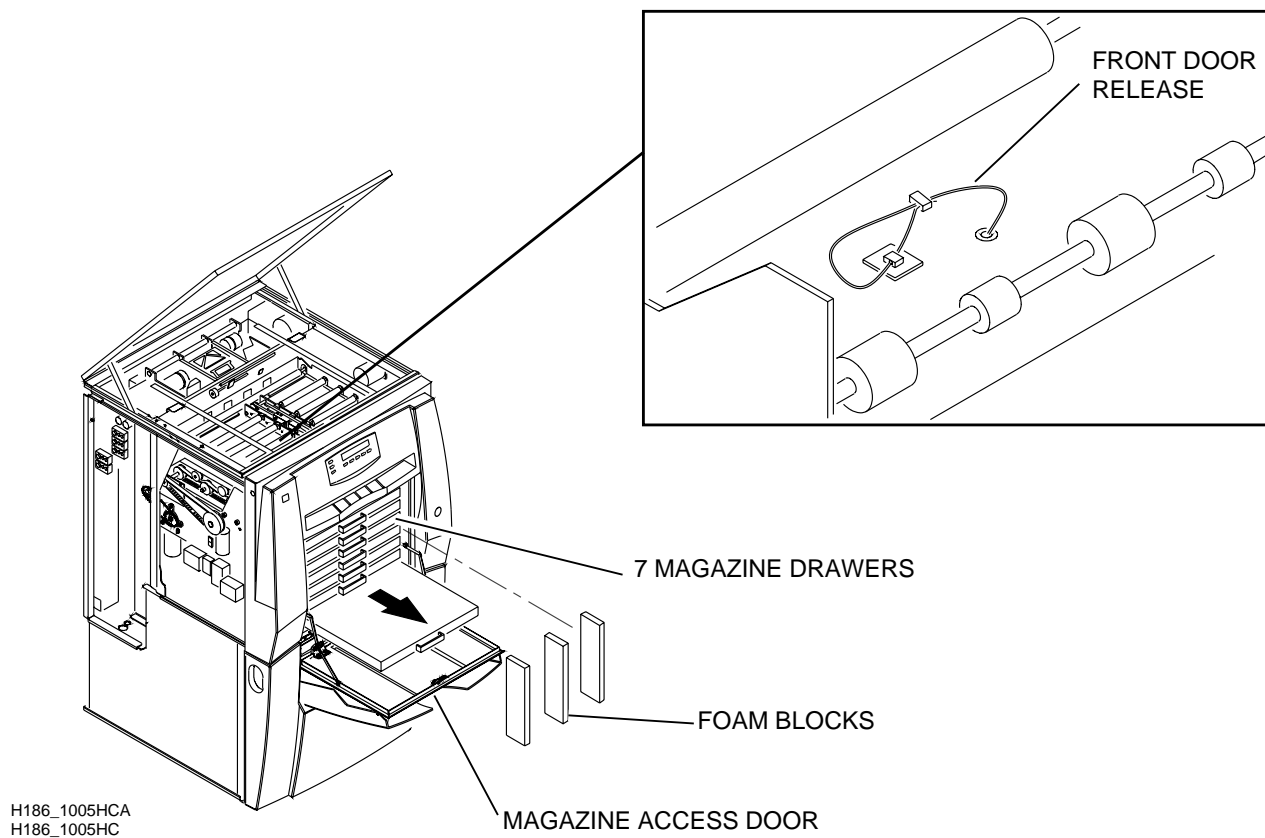
Important

Lift the TOP COVER to remove the SIDE PANELS.

[6] Rotate the 2 SCREWS 1/4 turn counterclockwise and lift the TOP COVER to engage the 2 COVER STAYS.

[7] Remove the 2 SIDE PANELS and the BACK PANEL:

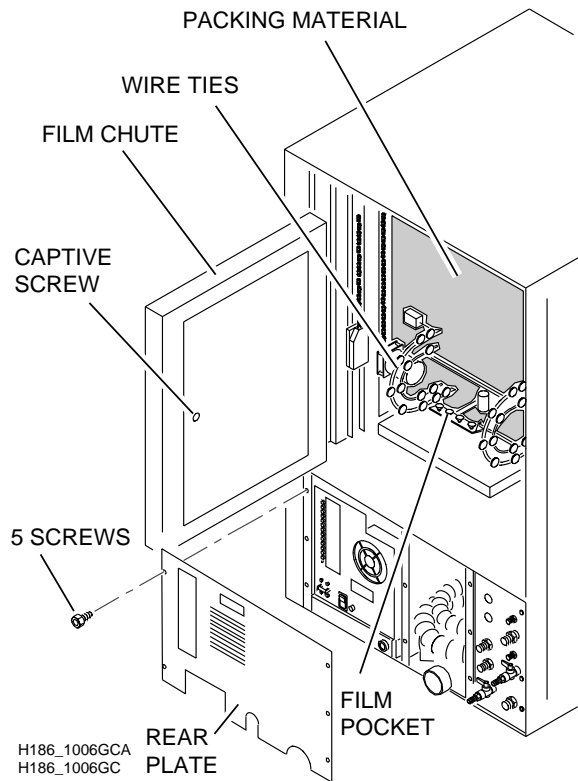
- (a)** Rotate the 2 SCREWS 1/4 turn counterclockwise on each PANEL.
- (b)** Pull each PANEL out 127 mm (5 in.).
- (c)** Disconnect the GROUND WIRE on the SIDE PANEL.
- (d)** Lift each PANEL from the TABS and remove.



[8] Pull the FRONT DOOR RELEASE to open the MAGAZINE ACCESS DOOR.

[9] Remove the 3 FOAM BLOCKS.

[10] Pull the 7 MAGAZINE DRAWERS out to the locked position.



[11] Remove:

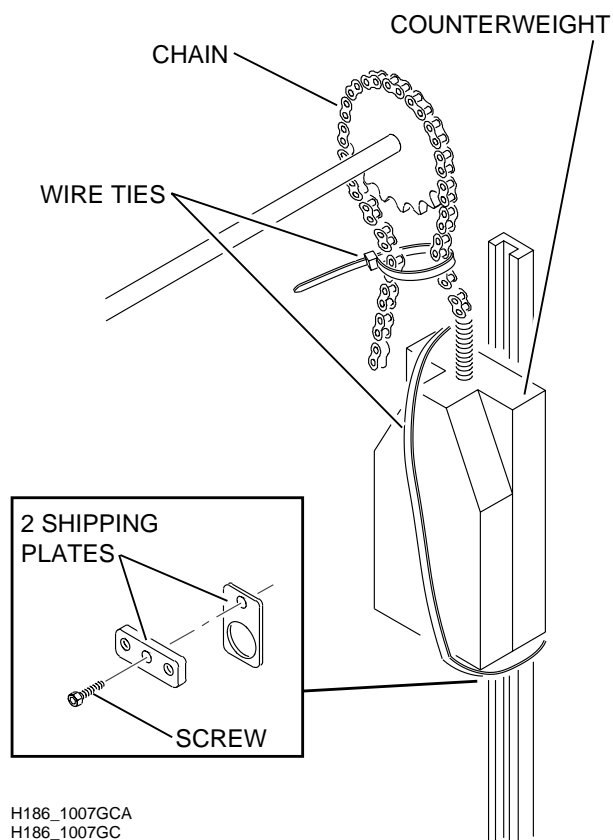
- 5 SCREWS
- REAR PLATE

[12] Loosen the CAPTIVE SCREW.

[13] Pull open the FILM CHUTE.

[14] Remove from the FILM POCKET:

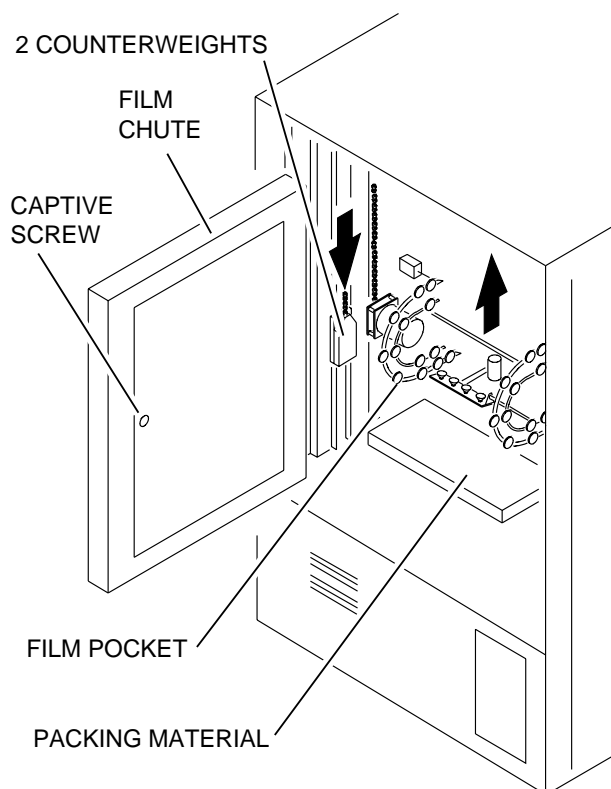
- WIRE TIES
- PACKING MATERIAL



[15] Cut and remove the WIRE TIES on the 2 COUNTERWEIGHTS and 2 CHAINS.

[16] Remove and discard from each COUNTERWEIGHT:

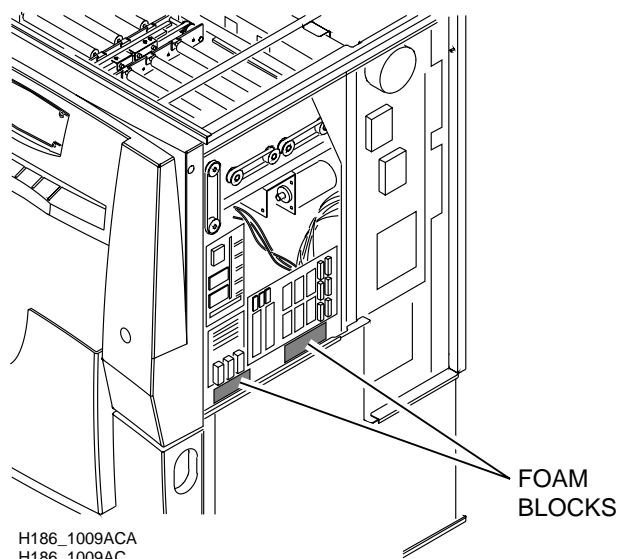
- SCREWS
- 2 SHIPPING PLATES



H186_1008GCA
H186_1008GC

[17] Pull down the 2 COUNTERWEIGHTS to lift the FILM POCKET up and remove the PACKING MATERIAL.

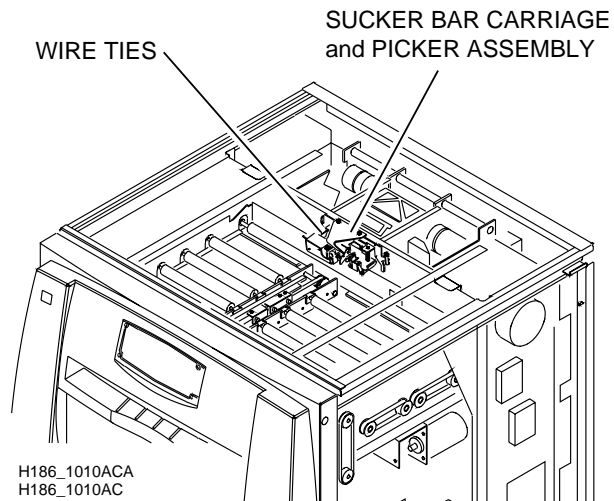
[18] Close the FILM CHUTE and tighten the CAPTIVE SCREW.



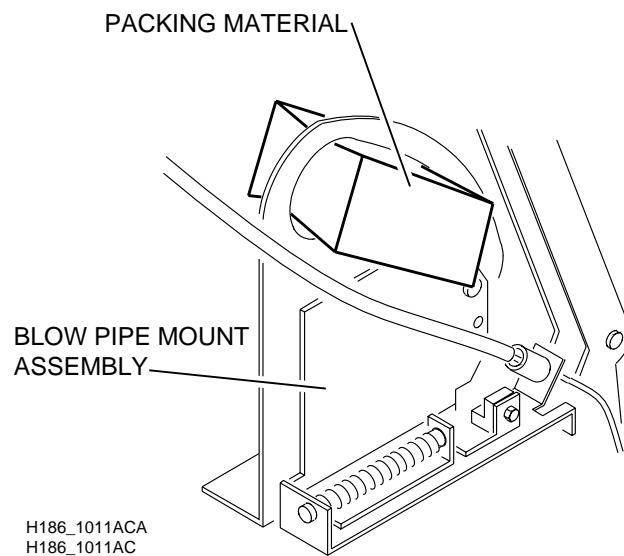
H186_1009ACA
H186_1009AC

[19] Remove the FOAM BLOCKS from the right side of the MULTILOADER 7000.

- [20]** Remove the 7 large shipping WIRE TIES from the SUCKER BAR CARRIAGE and PICKER ASSEMBLY.

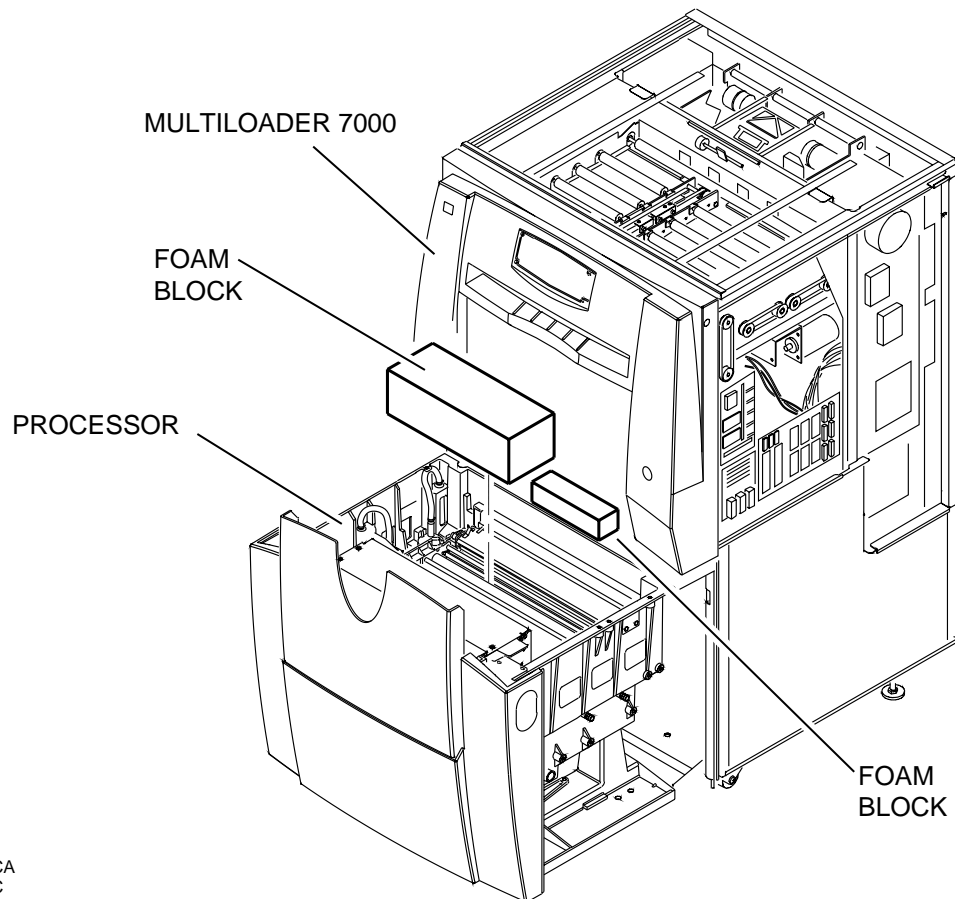


- [21]** Remove the PACKING MATERIAL from the right and left BLOW PIPE MOUNT ASSEMBLIES.
- [22]** Move the 7 MAGAZINE DRAWERS into the MULTILOADER 7000.
- [23]** Close the MAGAZINE ACCESS DOOR.

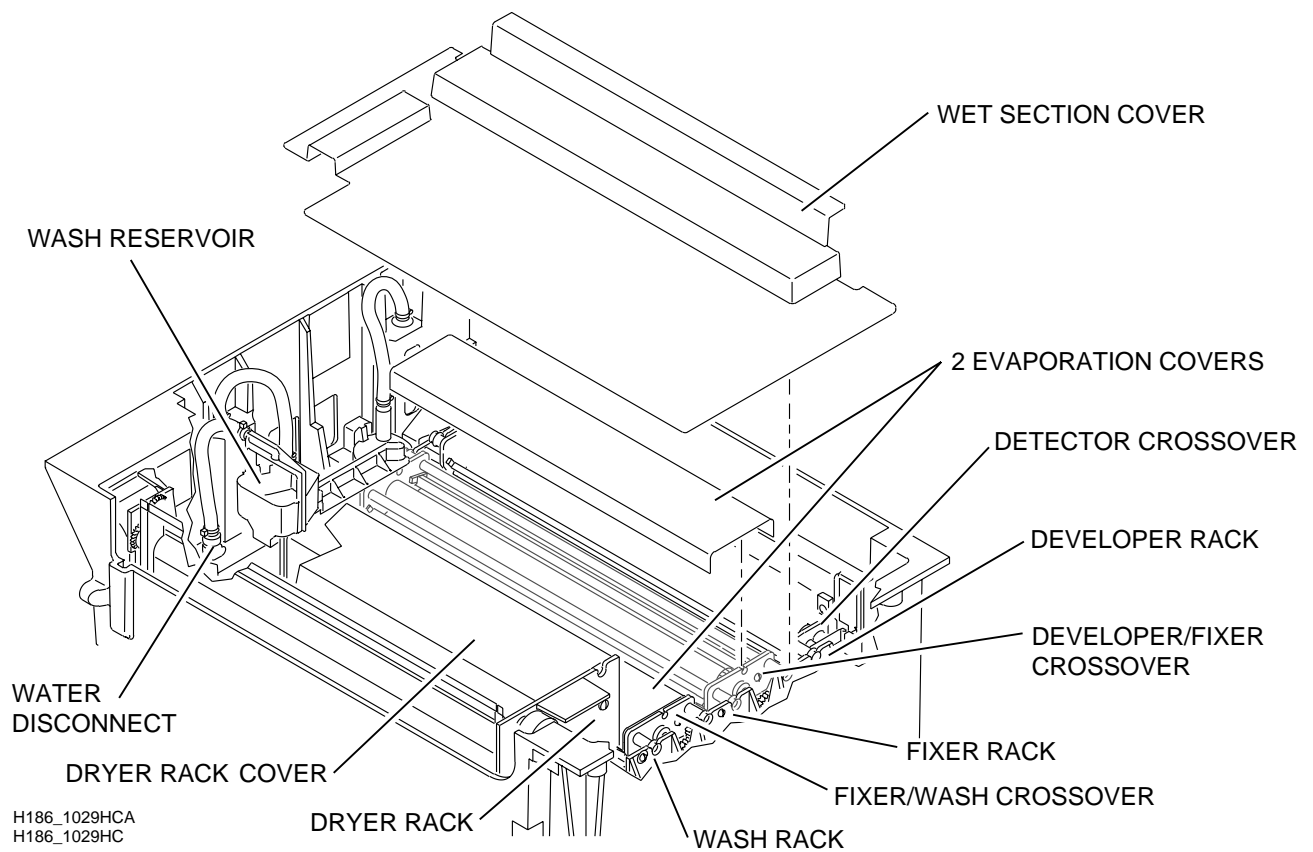


Section 4: Unpacking the 3000 RA INTEGRATED PROCESSOR

Removing the PACKING MATERIALS



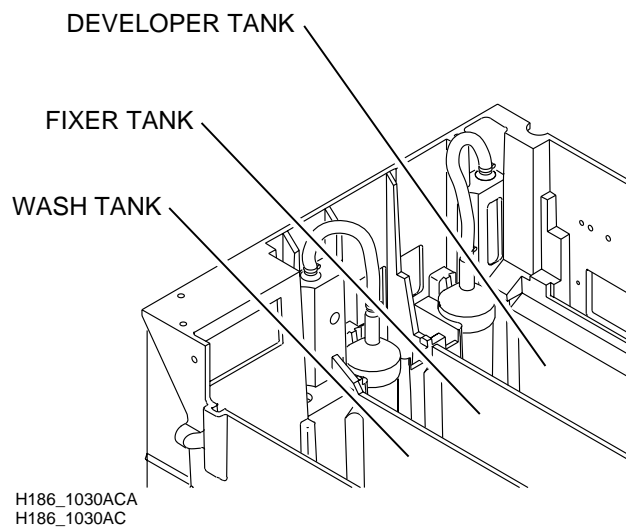
- [1] Pull out the PROCESSOR from the MULTILOADER 7000.
- [2] Remove and discard the 2 FOAM BLOCKS.



[3] Check that the FOAM BLOCK at the back of the WET SECTION COVER is removed.

[4] Remove:

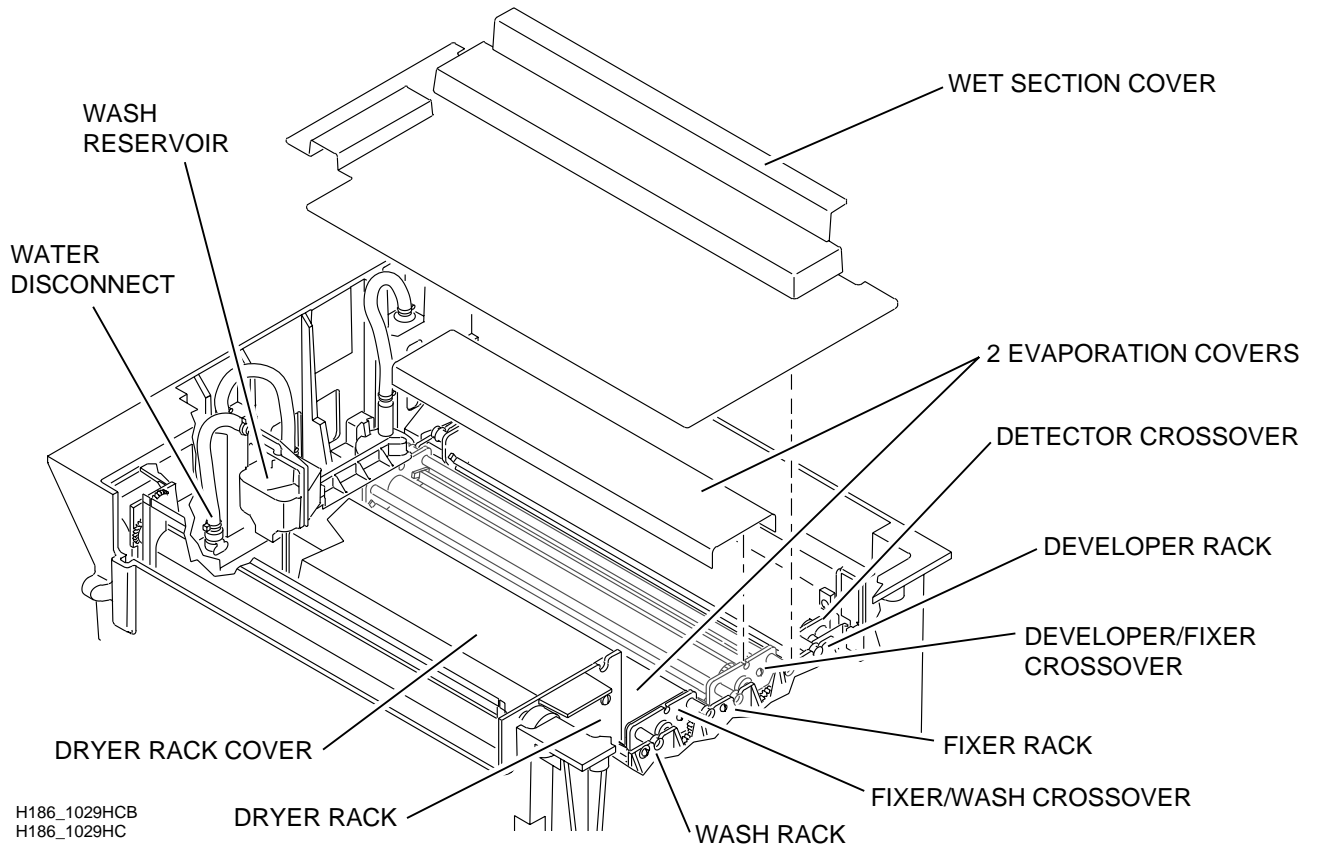
- WET SECTION COVER
- 2 EVAPORATION COVERS
- DETECTOR CROSSOVER
- WASH RESERVOIR
- WATER DISCONNECT
- DEVELOPER/FIXER CROSSOVER
- FIXER/WASH CROSSOVER
- DEVELOPER RACK
- FIXER RACK
- WASH RACK
- DRYER RACK
- DRYER RACK COVER
- PACKING MATERIAL from the DRYER RACK



[5] Remove all the PACKING MATERIAL from the following TANKS:

- DEVELOPER
- FIXER
- WASH

Installing the RACKS, CROSSOVERS and WASHER RESERVOIR



[1] Install:

- DEVELOPER RACK
- FIXER RACK
- WASH RACK
- DRYER RACK COVER
- DRYER RACK
- DETECTOR CROSSOVER
- DEVELOPER/FIXER CROSSOVER
- FIXER/WASH CROSSOVER

[2] Install the WASH RESERVOIR. Connect the WATER DISCONNECT.

[3] Check that all parts are seated correctly.

[4] Install:

- 2 EVAPORATION COVERS
- WET SECTION COVER



Caution

The HOSE CLAMPS can be loose after shipment.

[5] Tighten all metal HOSE CLAMPS.

Section 5: Installing the MULTILOADER 7000

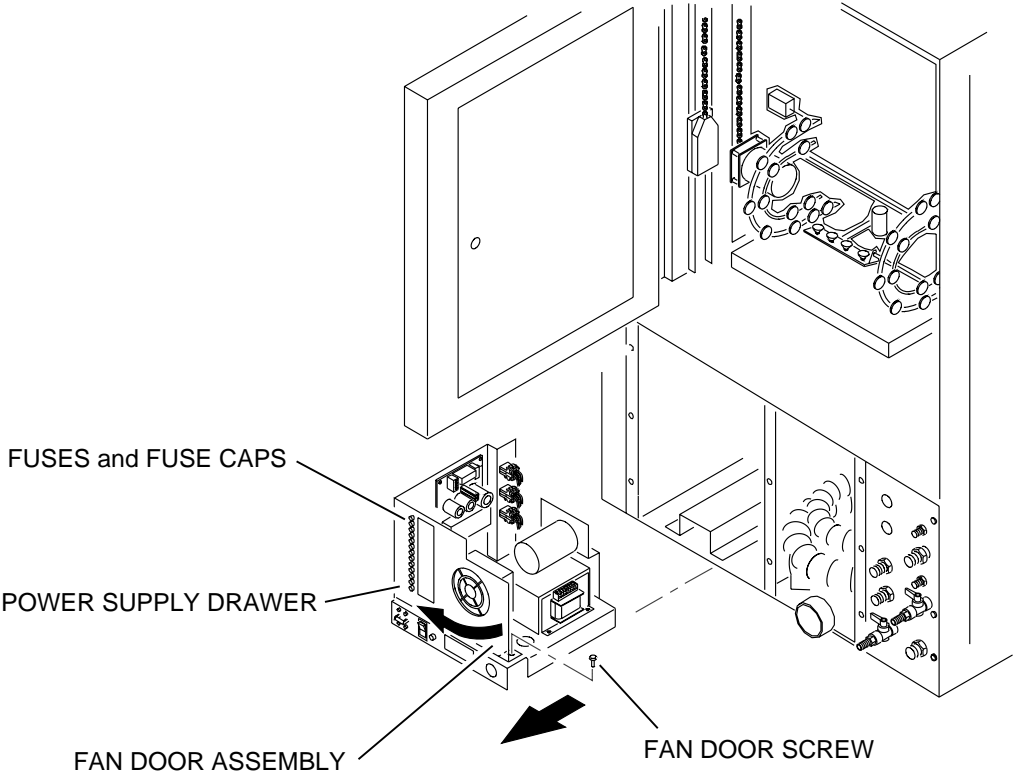
Connecting the WIRES of the MULTILOADER 7000



Warning

Dangerous Voltage

- [1] De-energize the main power.

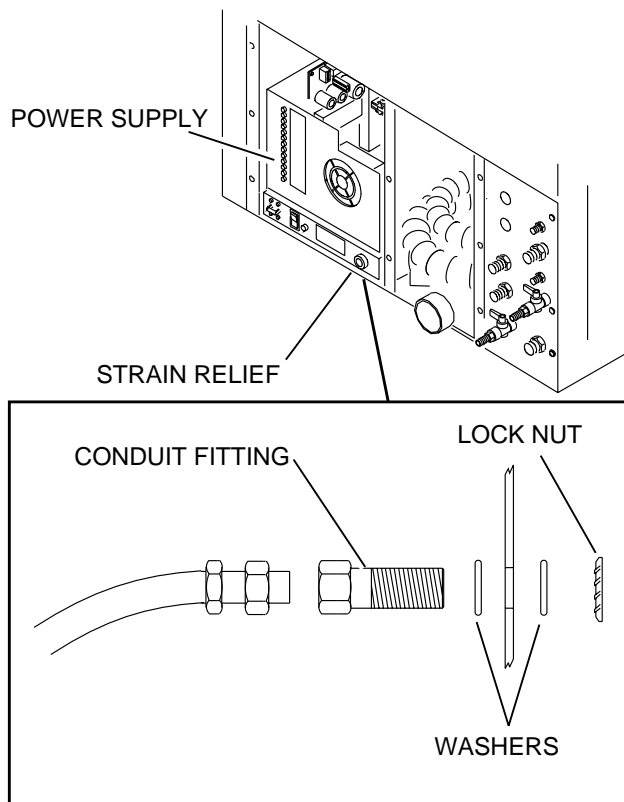


H186_1035HCA
H186_1035HC

- [2] Pull out the POWER SUPPLY DRAWER.
- [3] Is the MULTILOADER 7000 being installed in the U.S. or Canada?

Yes	No
1. Remove and discard all FUSES and FUSE CAPS from the POWER SUPPLY. 2. Insert the UL and CSA approved FUSES and FUSE CAPS from the PREPACK KIT.	1. Discard the additional FUSES and FUSE CAPS in the PREPACK KIT.

- [4] Remove the FAN DOOR SCREW and rotate the FAN DOOR ASSEMBLY.



H186_1036GCA
H186_1036GC



Caution

- For the U.S. and Europe follow local codes.
- Do not connect the MULTILOADER 7000 to the main electrical source before the wiring is completed.

[5] If the MULTILOADER 7000 is to be installed with CONDUIT, install:

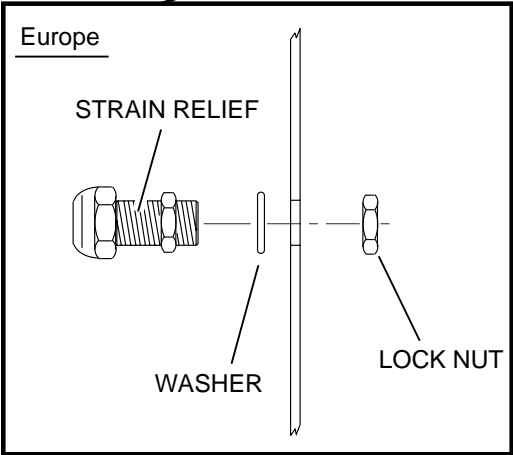
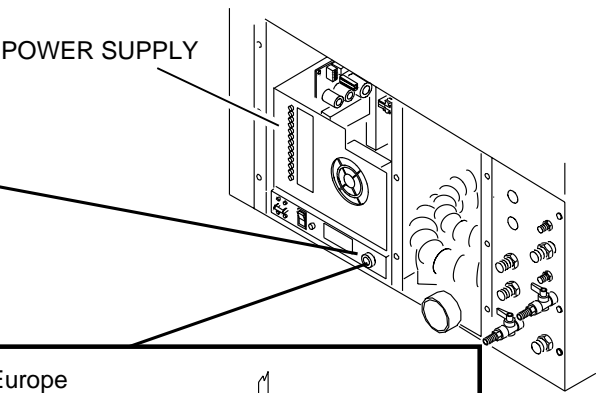
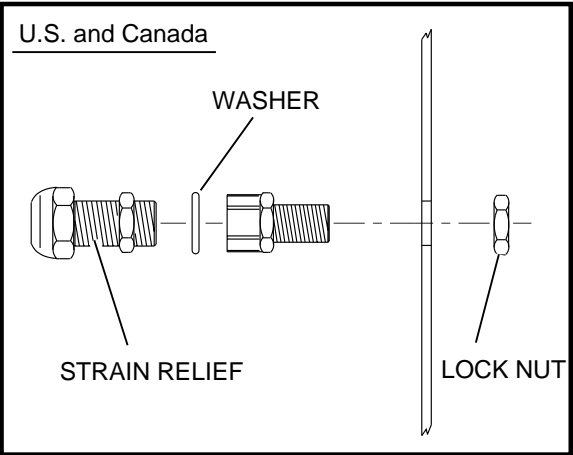
- CONDUIT FITTING from the PREPACK KIT
- LOCK NUT
- WASHERS



Caution

Do not connect the MULTILOADER 7000 to the main electrical source before the wiring for the POWER SUPPLY and the PROCESSOR is complete. Electrical shock may result.

[6] Connect the wires on the TERMINAL BLOCKS of the POWER SUPPLY. See Pages [26](#) - [42](#) for the correct connections.



H186_1037HCA
H186_1037HC

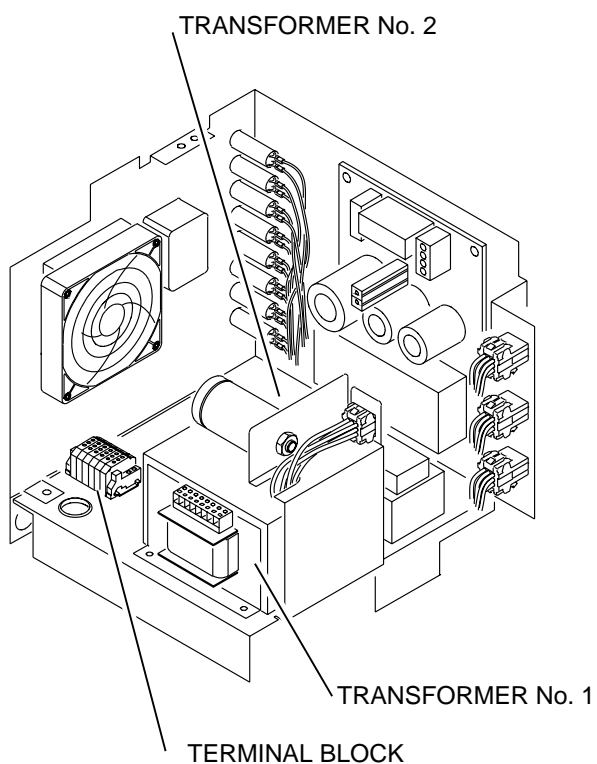
[7] If the MULTILoader 7000 is connected with a LINE CORD, install:

- STRAIN RELIEF
- LOCK NUT
- WASHER
- LINE CORD per your local code

Note

- For Europe use the following LINE CORD:
 - H05VV-F or H07RN-F
 - 3 G 6mm² for 1/N/PE - 200/220/230/240 V AC
- If the MULTILoader 7000 is connected with a LINE CORD, use the following MAIN CORD PLUG:
 - CEE - PLUG, TYPE 260, 32A-6H/220 - 240 V AC, 2P plus GROUND with VDE approval
- For the U.S. and Canada use the following:

3 x AWG 12 for 1P/240V (S, SO, ST, STO)	PLUG Type 6-30
4 x AWG 10 for 1P/208V (S, SO, ST, STO)	PLUG Type 18-30
5 x AWG 12 for 3P/208V (S, SO, ST, STO)	PLUG Type L21-30



H186_1053GCA
H186_1053GC

[8] At the TERMINAL BLOCK, TRANSFORMER No. 1 and No. 2, connect to the correct line voltage:

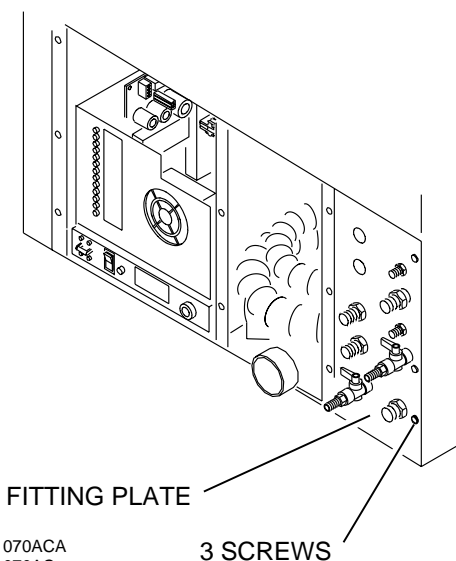
- wires
- JUMPERS
- INSULATING PLATES



Note

See Pages [26](#) - [42](#) for the correct connections.

Connecting the Wires of the 3000 RA PROCESSOR



H186_1070ACA
H186_1070AC

[1] Remove:

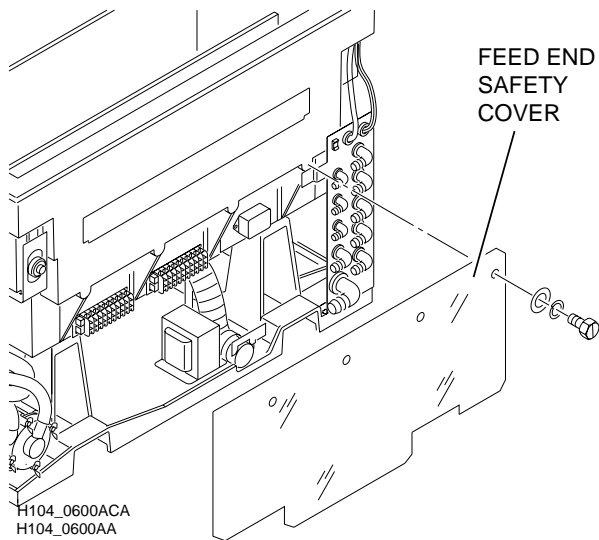
- 3 SCREWS
- FITTING PLATE



Caution

Avoid pressure on the PLASTIC HOSE CONNECTOR FITTINGS when you extend the PROCESSOR for access to the TERMINAL BLOCKS at the rear of the PROCESSOR. The FITTINGS may crack.

[2] Extend the PROCESSOR from the MULTILOADER 7000 as far as it will go by allowing the FITTING PLATE and hoses to move into the MULTILOADER 7000. This will allow access to the SCREWS.



- [3] Remove the FEED END SAFETY COVER from the PROCESSOR. Keep the SCREWS and WASHERS.

- [4] Connect the wires on the TERMINAL BLOCKS of the PROCESSOR. See Pages [26](#) - [42](#) for the correct connections.

- [5] Install the FEED END SAFETY COVER removed in [Step 3](#).

- [6] Move the PROCESSOR and FITTING PLATE back into the MULTILOADER 7000.

- [7] Install:

- 3 SCREWS
- FITTING PLATE

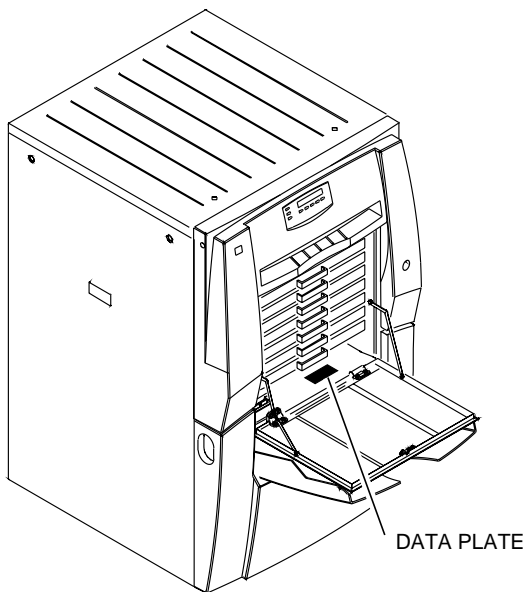
- [8] Rotate the FAN DOOR ASSEMBLY in and install the SCREW.

- [9] Slide the POWER SUPPLY DRAWER into the MULTILOADER 7000.

- [10] Install:

- 5 SCREWS
- REAR PLATE

- [11] Check that the CIRCUIT BREAKER for the PROCESSOR is in the "OFF" position.



Important

Due to TUV safety regulations, the selected line voltage must be visible on the DATA PLATE on the BOTTOM PLATE of the MAGAZINE SHUTTLE MECHANISM. The LABEL is in the PREPACK KIT.

- [12] Install the LABEL with the selected line voltage to the DATA PLATE.

H186_1106GCA
H186_1106GC

Connecting the POWER SUPPLY



Important

The POWER SUPPLY is wired at the factory for 3/N/PE, 400 volts, 50/60 Hz - Phase 3. See Diagram No. 12.

[1] For the correct configuration at your site, use the Diagrams on Pages [26](#) - [42](#) to connect the POWER SUPPLY.

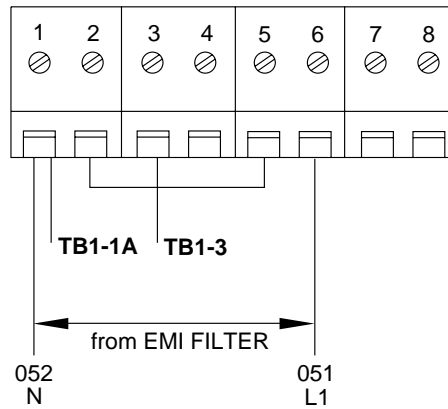
Note	System MAINS (V)	Frequency (Hz)	No. of Wires, not including the GROUND WIRE	Europe Designation	MAINS CIRCUIT BREAKER		Diagram No.
					Europe	U.S.	
1	200	50/60	2	1/N/PE	32	30	1
1	220	50/60	2	1N/PE	32	30	2
1	230	50/60	2	1/N/PE	32	30	3
1	240	50/60	2	1/N/PE	32	30	4
3	200	50/60	2	2/PE	32	30	5
3	220	50/60	2	2/PE	32	30	6
3	230	50/60	2	2/PE	32	30	7
3	240	50/60	2	2/PE	32	30	8
2	200	50/60	3	3/PE	16	20	9
2	220	50/60	3	3/PE	16	20	10
4	380	50/60	4	3/N/PE	16	20	11
4	400	50/60	4	3/N/PE	16	30	12
4	415	50/60	4	3/N/PE	16	20	13
3	120/208	60	2	-	-	30	14
2	120/208	60	3	-	-	20	15
5	120/240	60	3	-	-	30	16
3	240	60	2	-	-	30	17

Note	Description
1	L1, N used in this configuration
2	L1, L2, L3 used in this configuration
3	L1, L2 used in this configuration
4	L1, L2, L3 and N used in this configuration
5	L1, L2, and N used in this configuration

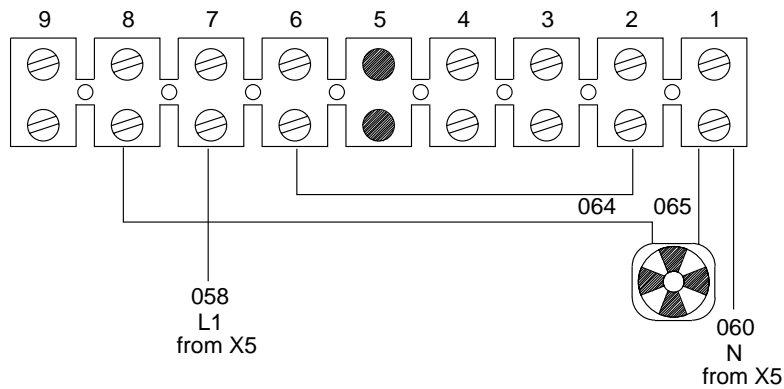
Wiring for 1/N/PE ~ 200 V (50/60 Hz) - 1 Phase+Neutral+Ground connected

Diagram No. 1

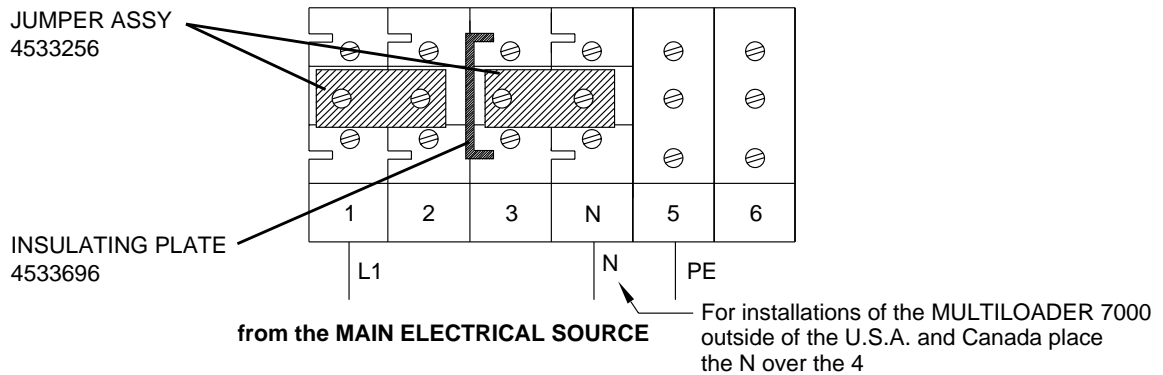
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



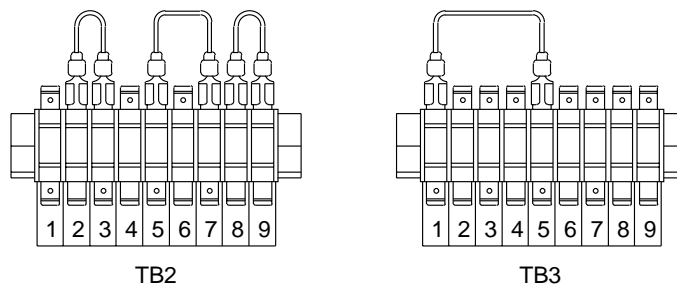
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



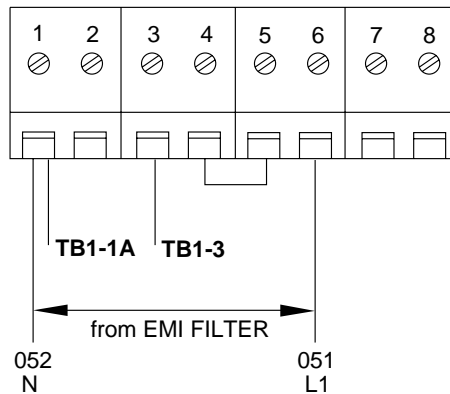
TERMINAL BLOCKS for the 3000 RA PROCESSOR



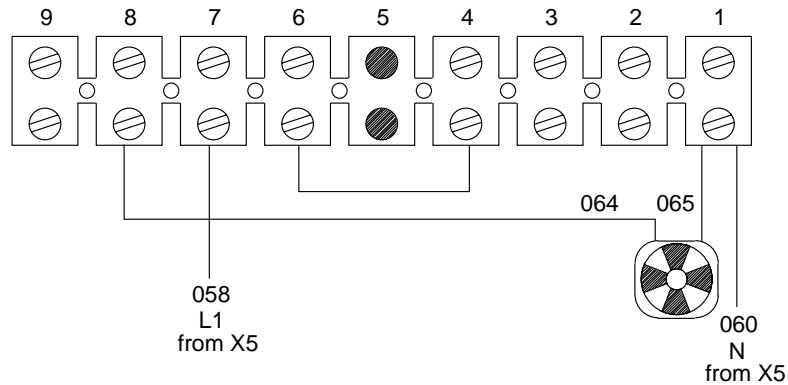
Wiring for 1/N/PE ~ 220 V (50/60 Hz) - 1 Phase+Neutral+Ground connected

Diagram No. 2

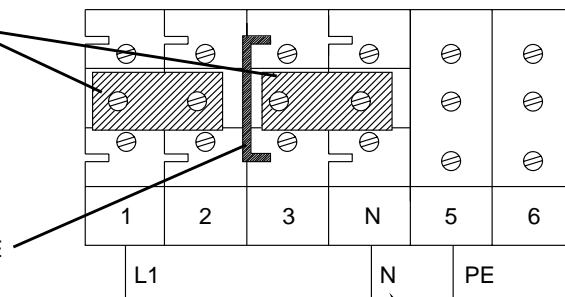
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILoader 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILoader 7000



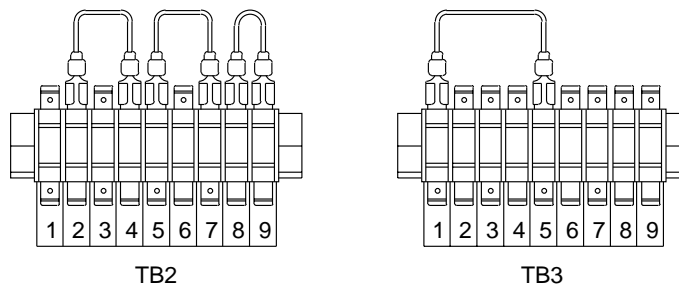
TERMINAL BLOCK X5 for the MULTILoader 7000

JUMPER ASSY
4533256INSULATING PLATE
4533696

from the MAIN ELECTRICAL SOURCE

For installations of the MULTILoader 7000
outside of the U.S.A. and Canada place
the N over the 4

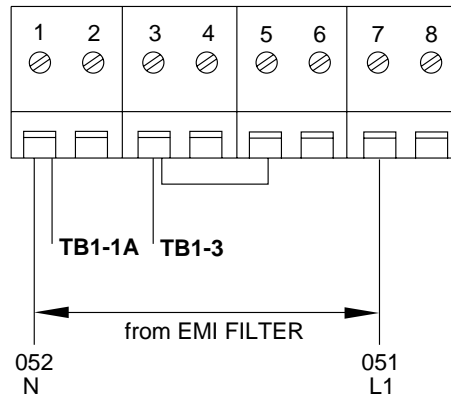
TERMINAL BLOCKS for the 3000 RA PROCESSOR



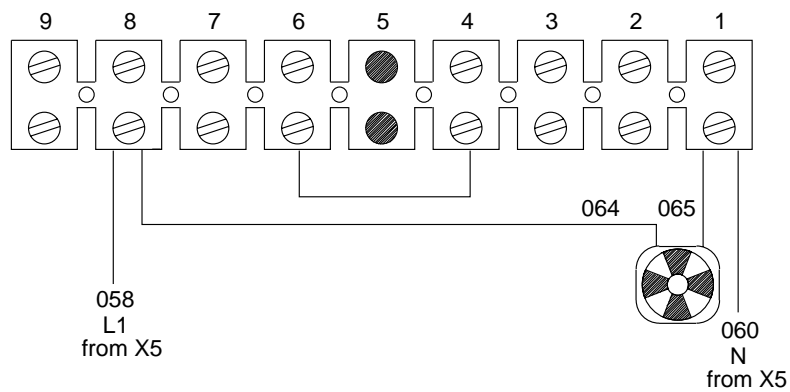
Wiring for 1/N/PE ~ 230 V (50/60 Hz) - 1 Phase+Neutral+Ground connected

Diagram No. 3

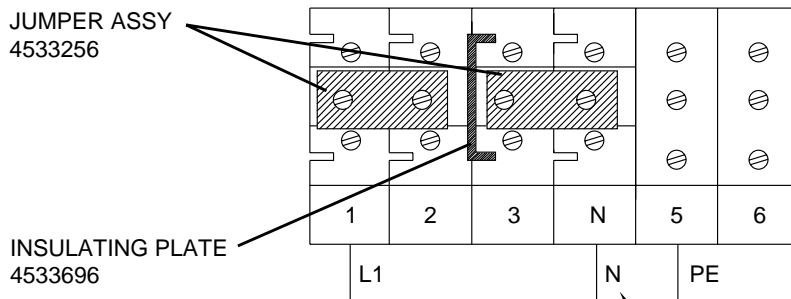
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000

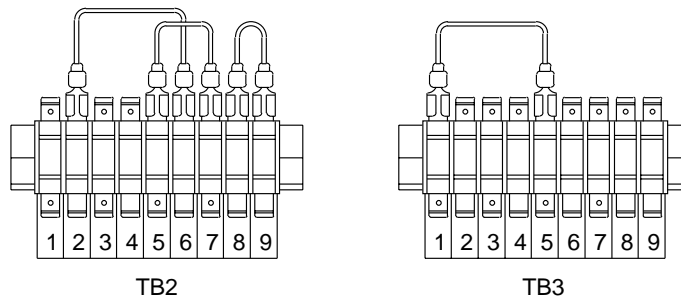


TERMINAL BLOCK X5 for the MULTILOADER 7000



For installations of the MULTILOADER 7000 outside of the U.S.A. and Canada place the N over the 4

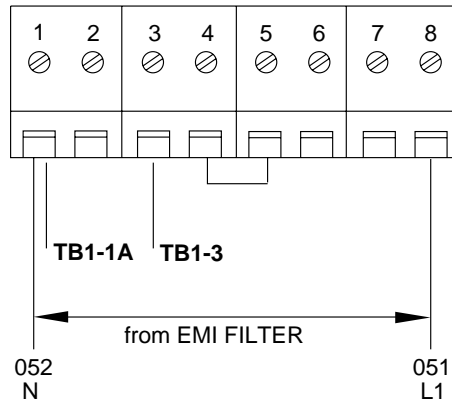
TERMINAL BLOCKS for the 3000 RA PROCESSOR



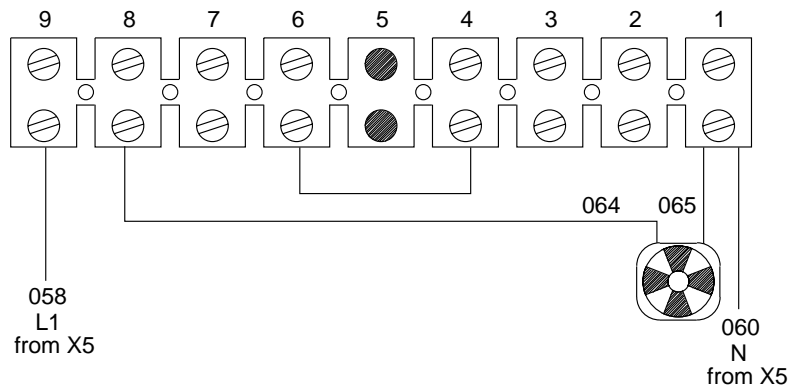
Wiring for 1/N/PE ~ 240 V (50/60 Hz) - 1 Phase+Neutral+Ground connected

Diagram No. 4

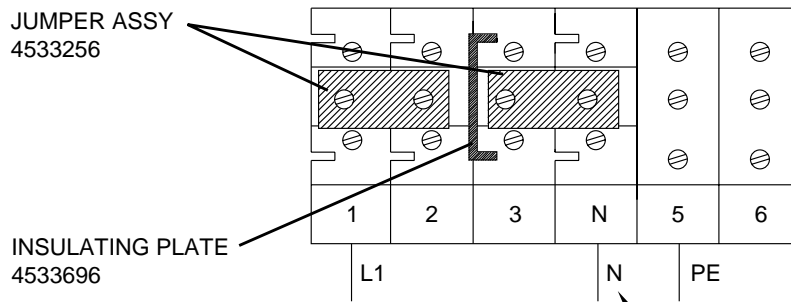
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



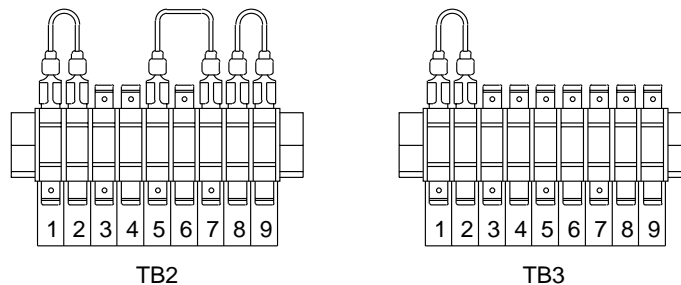
TERMINAL BLOCK X5 for the MULTILOADER 7000



from the MAIN ELECTRICAL SOURCE

For installations of the MULTILOADER 7000 outside of the U.S.A. and Canada place the N over the 4

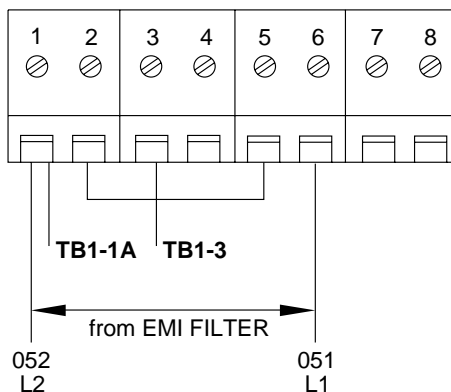
TERMINAL BLOCKS for the 3000 RA PROCESSOR



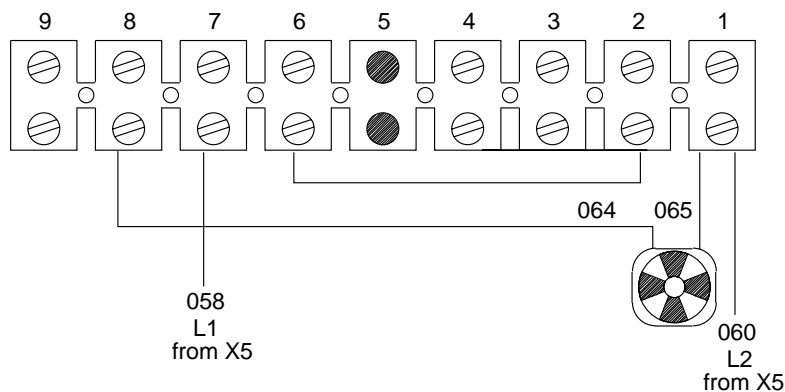
Wiring for 2/PE ~ 200 V (50/60 Hz) - 2 Phases+Ground connected

Diagram No. 5

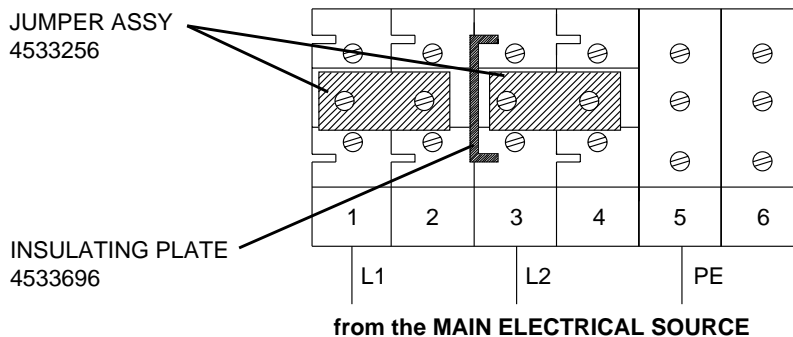
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



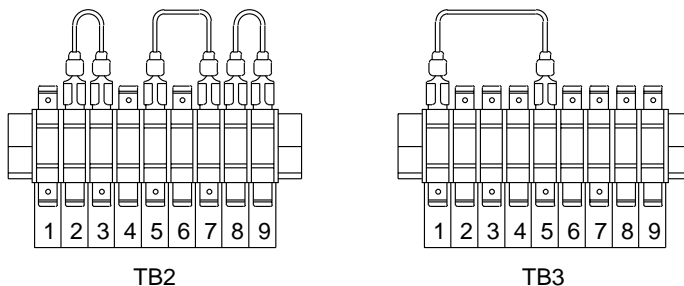
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR

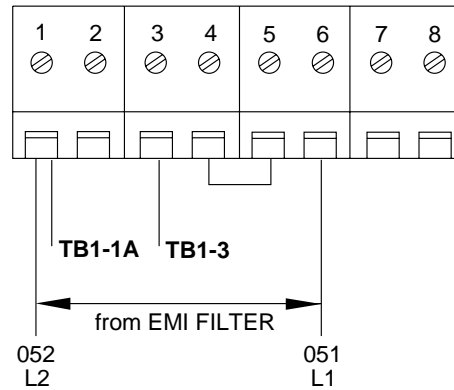


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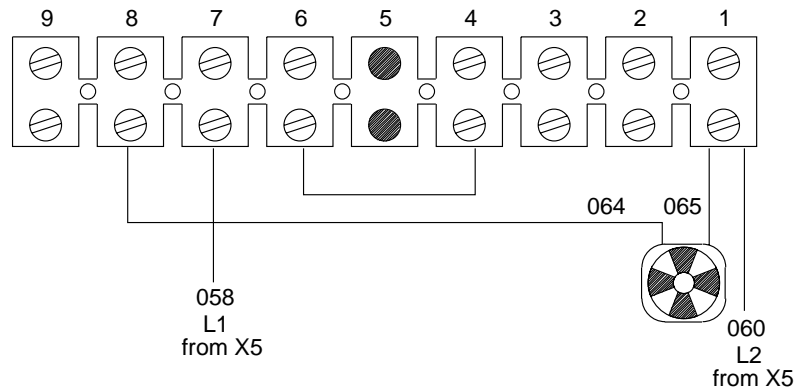
Wiring for 2/PE ~ 220 V (50/60 Hz) - 2 Phases+Ground connected

Diagram No. 6

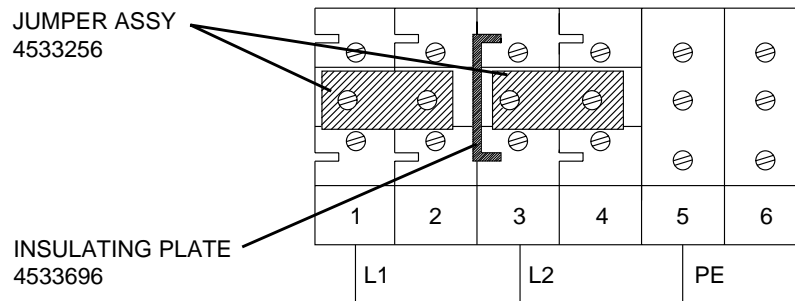
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000

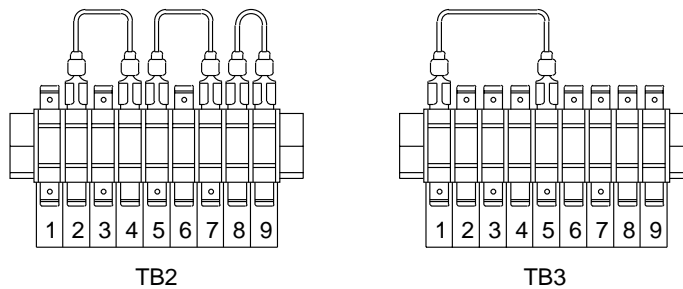


TERMINAL BLOCK X5 for the MULTILOADER 7000



from the MAIN ELECTRICAL SOURCE

TERMINAL BLOCKS for the 3000 RA PROCESSOR

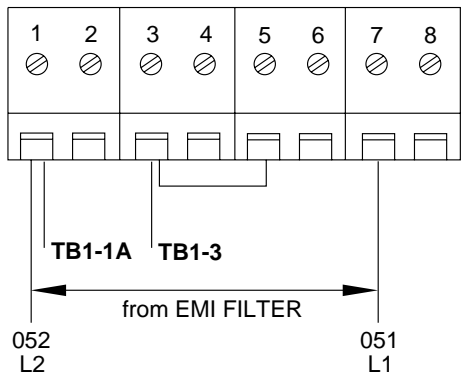


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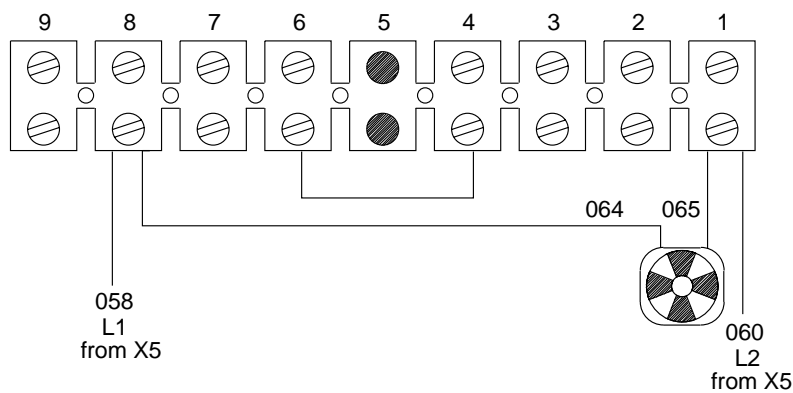
Wiring for 2/PE ~ 230 V (50/60 Hz) - 2 Phases+Ground connected

Diagram No. 7

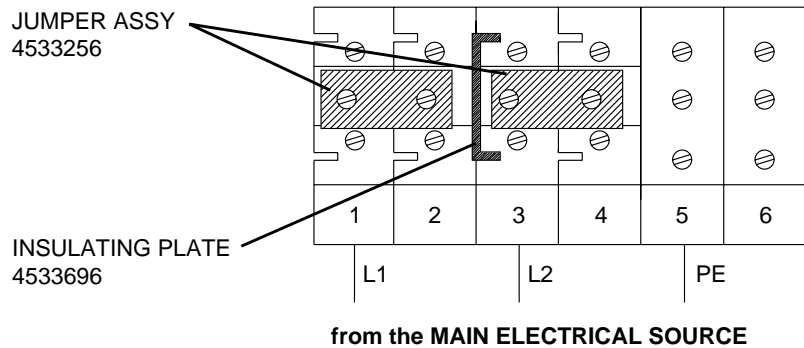
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



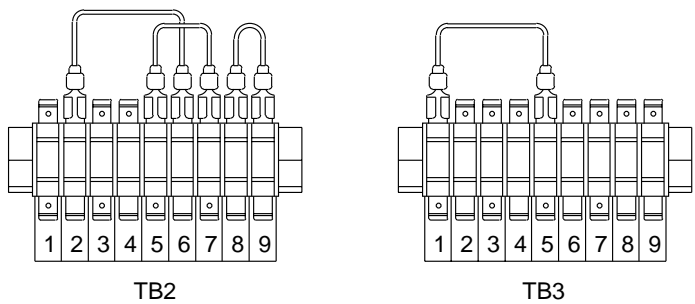
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



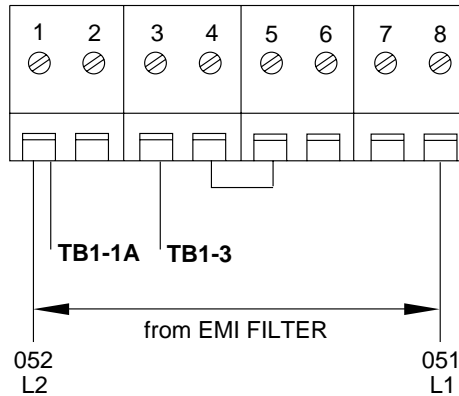
TERMINAL BLOCKS for the 3000 RA PROCESSOR



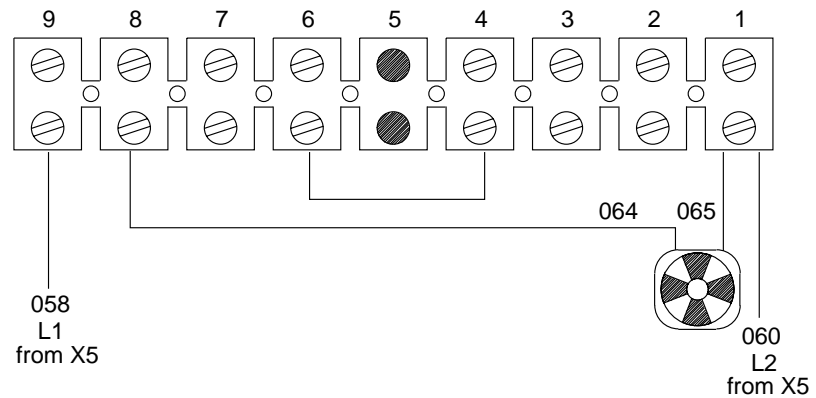
Wiring for 2/PE ~ 240 V (50/60 Hz) - 2 Phases+Ground connected

Diagram No. 8

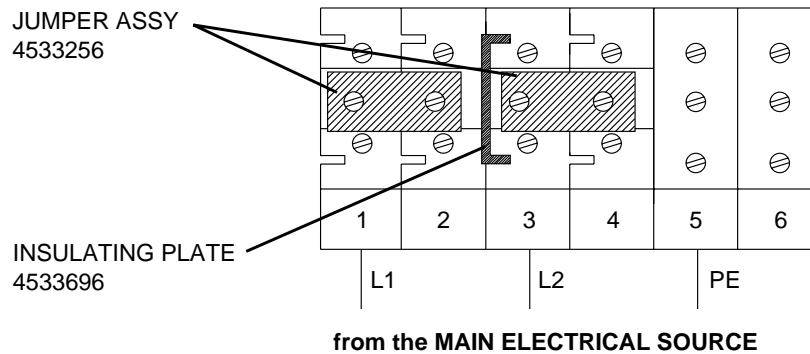
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILoader 7000



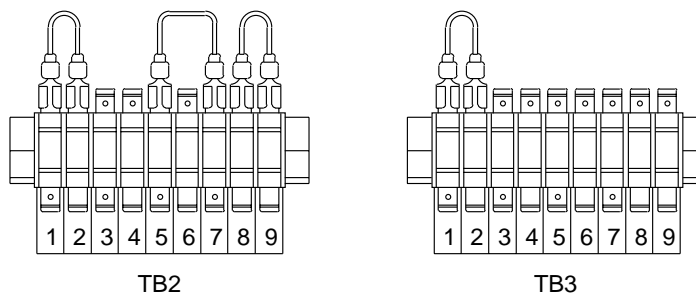
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TERMINAL BLOCK X5 for the MULTILoader 7000



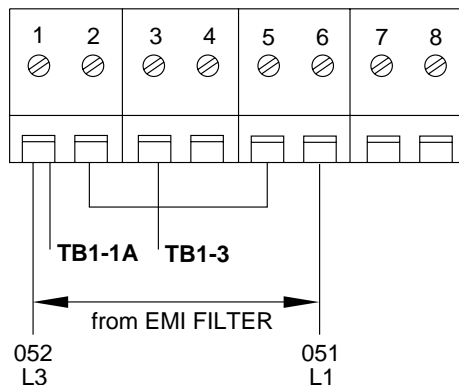
TERMINAL BLOCKS for the 3000 RA PROCESSOR



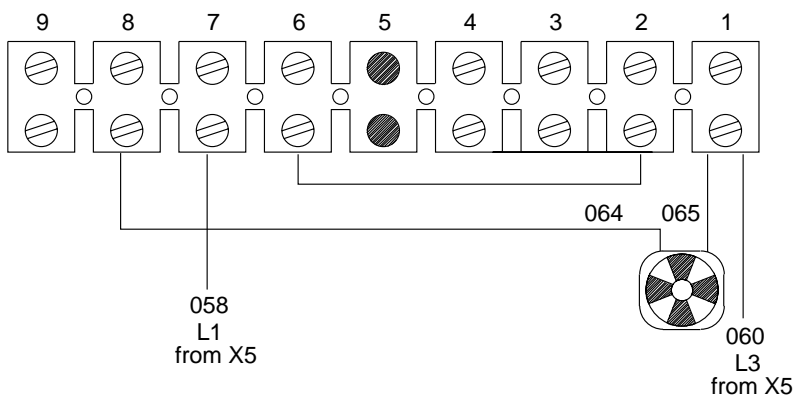
Wiring for 3/PE ~ 200 V (50/60 Hz) - 3 Phases+Ground connected

Diagram No. 9

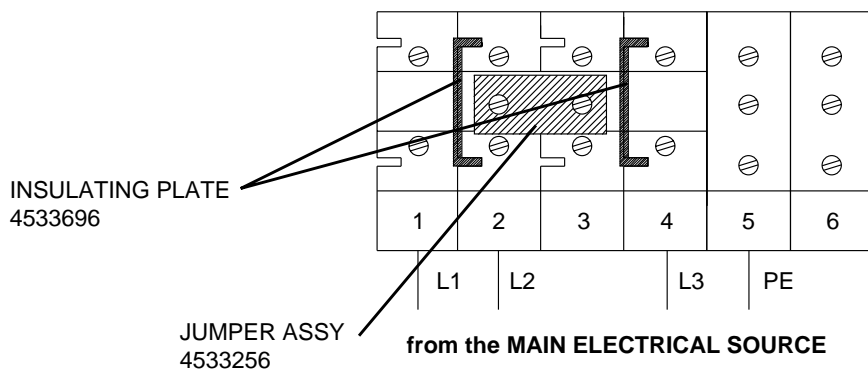
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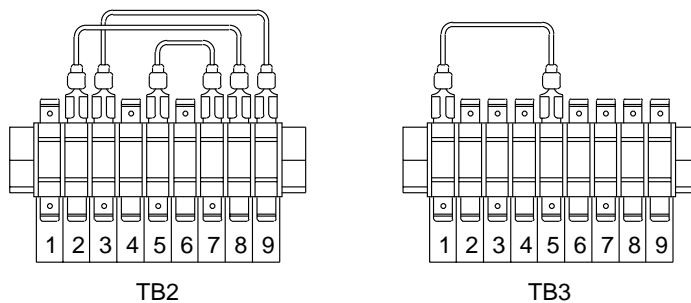
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR

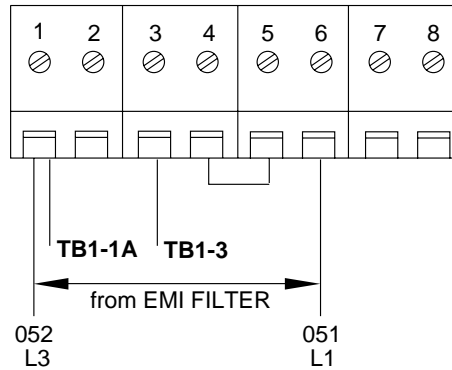


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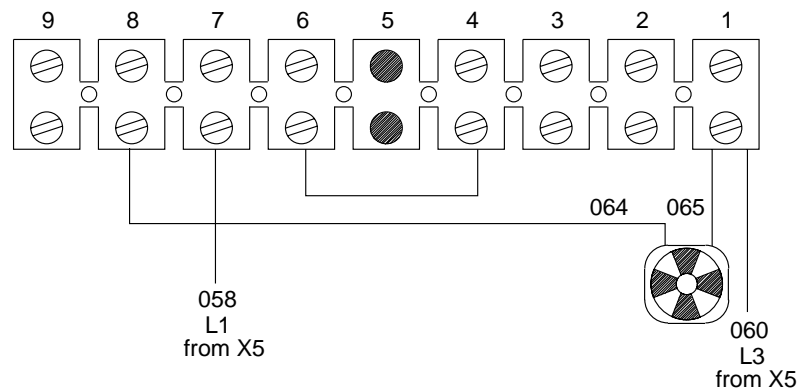
Wiring for 3/PE ~ 220 V (50/60 Hz) - 3 Phases+Ground connected

Diagram No. 10

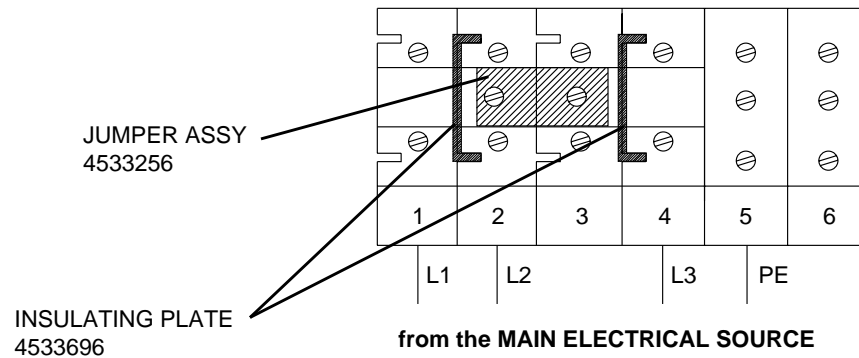
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



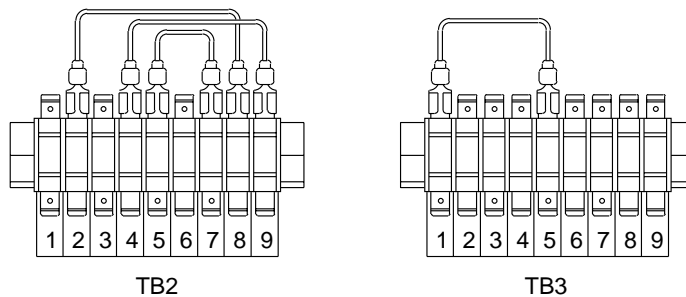
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR

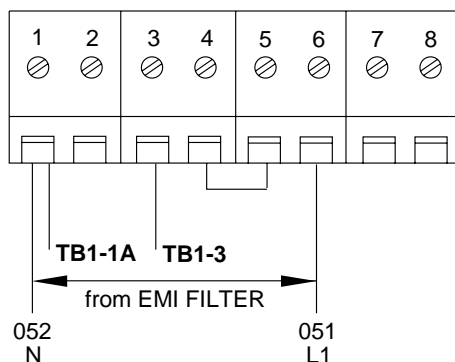


H186_1012EC

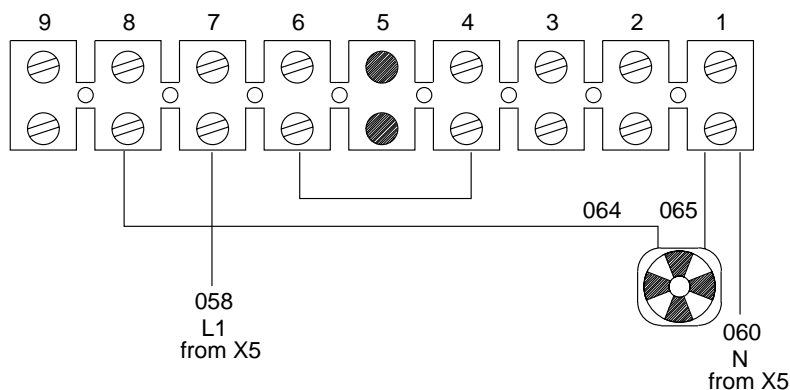
Wiring for 3/N/PE ~ 380 V (50/60 Hz) - 3 Phases+Neutral+Ground connected

Diagram No. 11

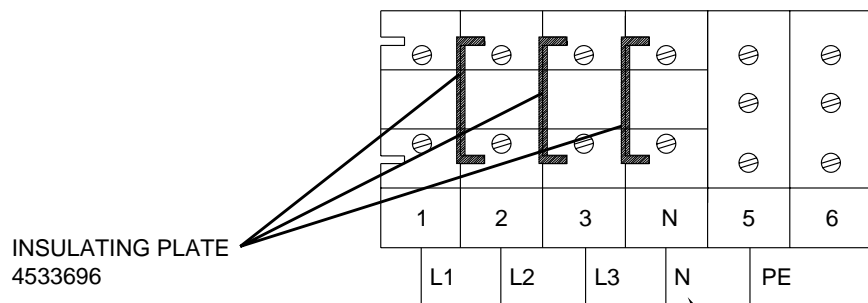
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



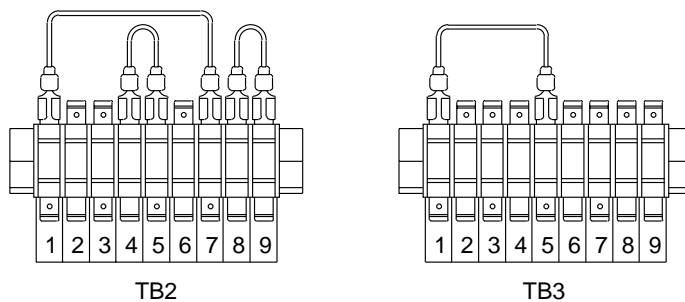
TERMINAL BLOCK X5 for the MULTILOADER 7000



from the MAIN ELECTRICAL SOURCE

For installations of the MULTILOADER 7000 outside of the U.S.A. and Canada place the N over the 4

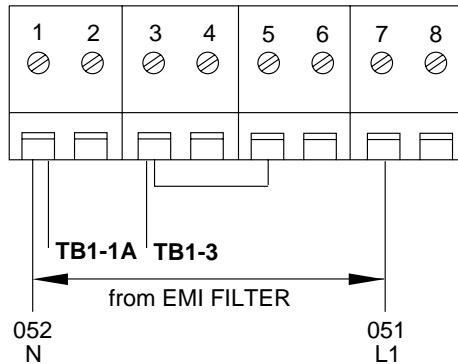
TERMINAL BLOCKS for the 3000 RA PROCESSOR



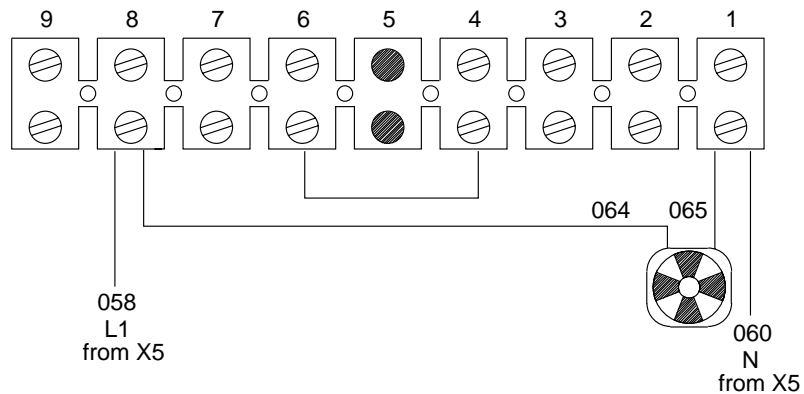
Wiring for 3/N/PE ~ 400 V (50/60 Hz) - 3 Phases+Neutral+Ground connected

Diagram No. 12

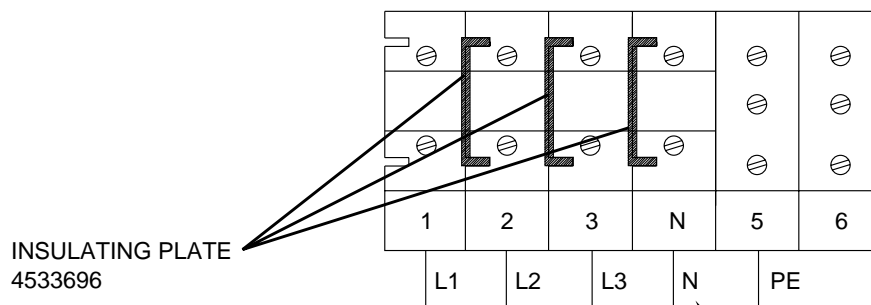
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



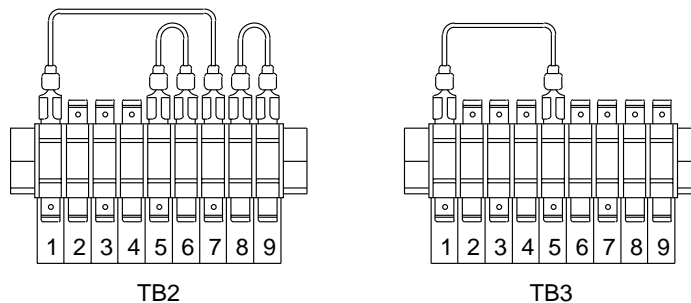
TERMINAL BLOCK X5 for the MULTILOADER 7000



from the MAIN ELECTRICAL SOURCE

For installations of the MULTILOADER 7000 outside of the U.S.A. and Canada place the N over the 4

TERMINAL BLOCKS for the 3000 RA PROCESSOR

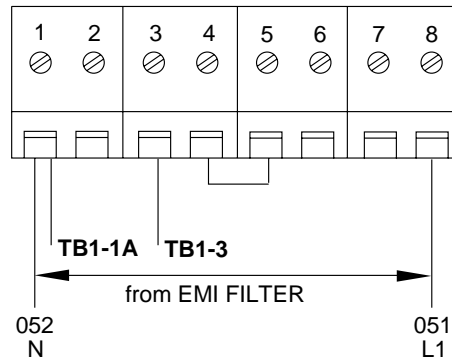


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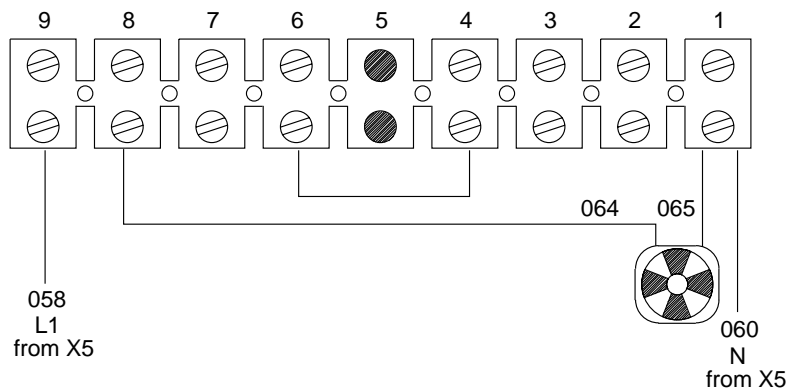
Wiring for 3/N/PE ~ 415 V (50/60 Hz) - 3 Phases+Neutral+Ground connected

Diagram No. 13

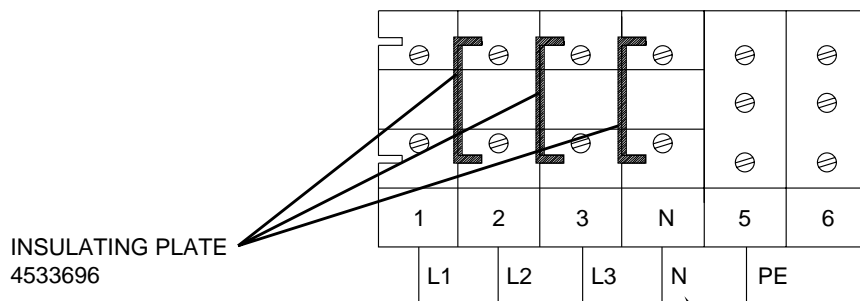
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TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



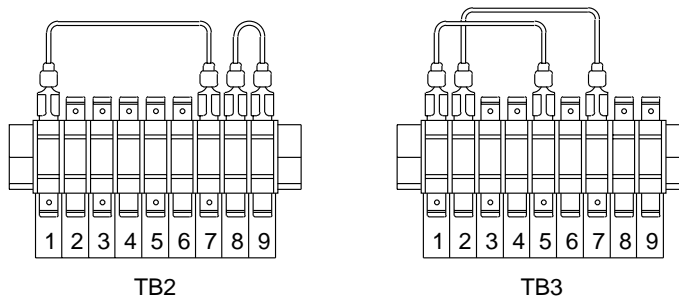
TERMINAL BLOCK X5 for the MULTILOADER 7000



from the MAIN ELECTRICAL SOURCE

For installations of the MULTILOADER 7000 outside of the U.S.A. and Canada place the N over the 4

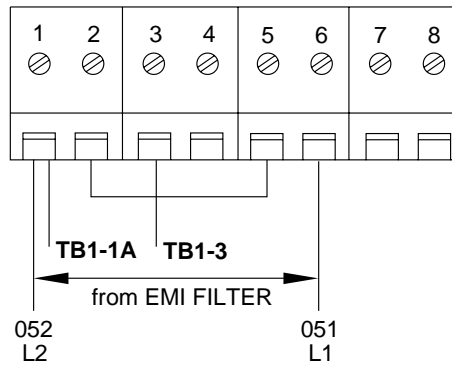
TERMINAL BLOCKS for the 3000 RA PROCESSOR



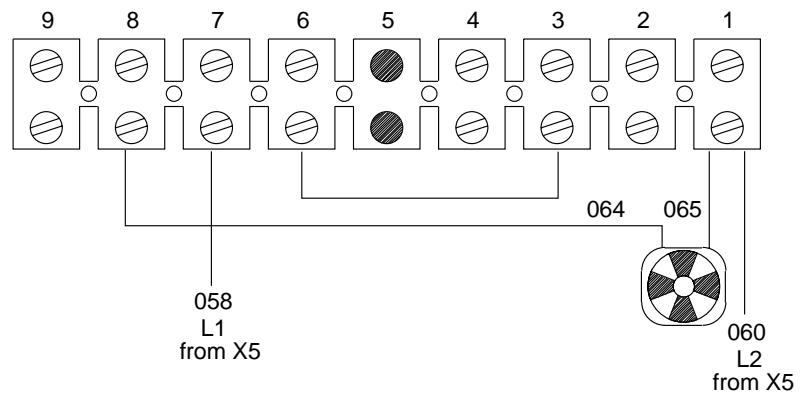
Wiring for 120/208 V (60 Hz) - 2 Phases+Ground connected

Diagram No. 14

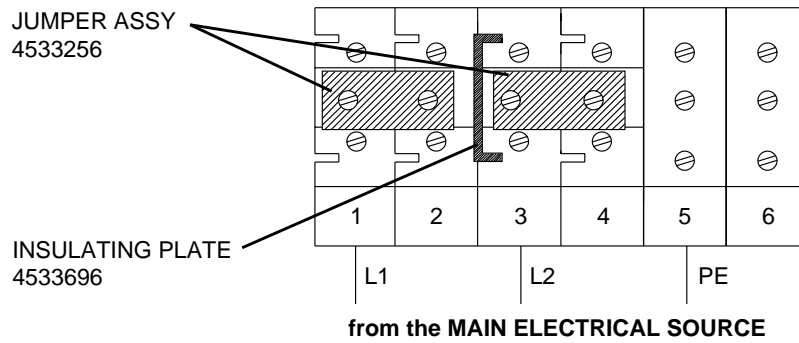
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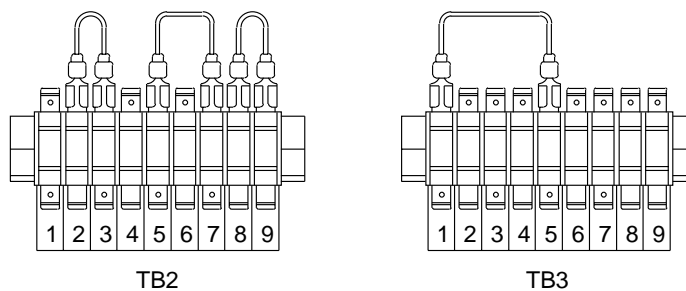
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR

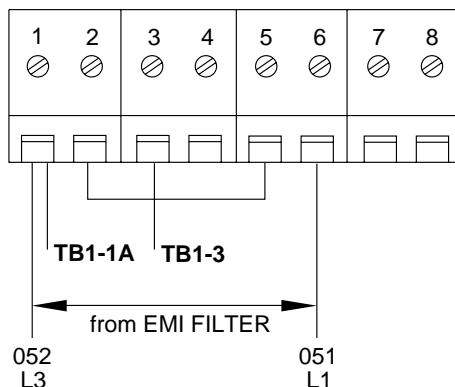


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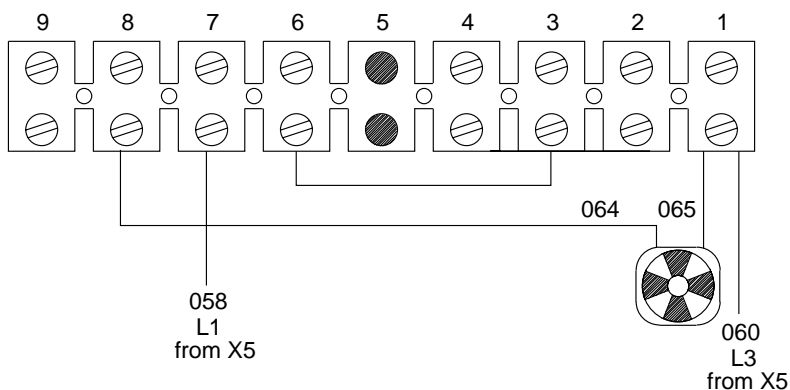
Wiring for 120/208 V (60 Hz) 3 PH 4W - 3 Phases+Ground connected

Diagram No. 15

TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



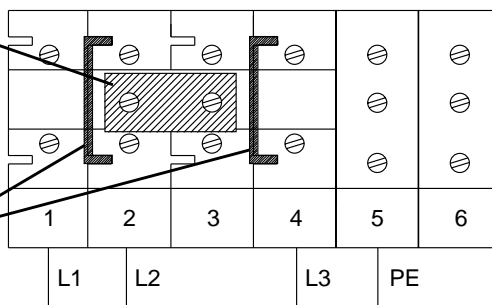
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



TERMINAL BLOCK X5 for the MULTILOADER 7000

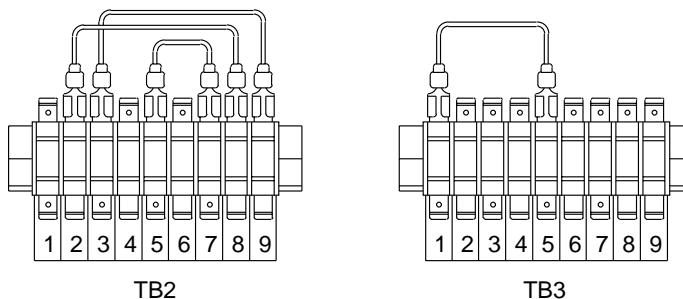
JUMPER ASSY
4533256

INSULATING PLATE
4533696



from the MAIN ELECTRICAL SOURCE

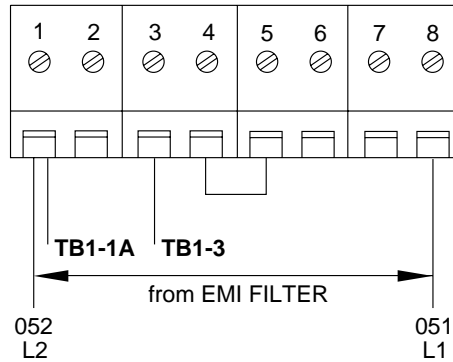
TERMINAL BLOCKS for the 3000 RA PROCESSOR



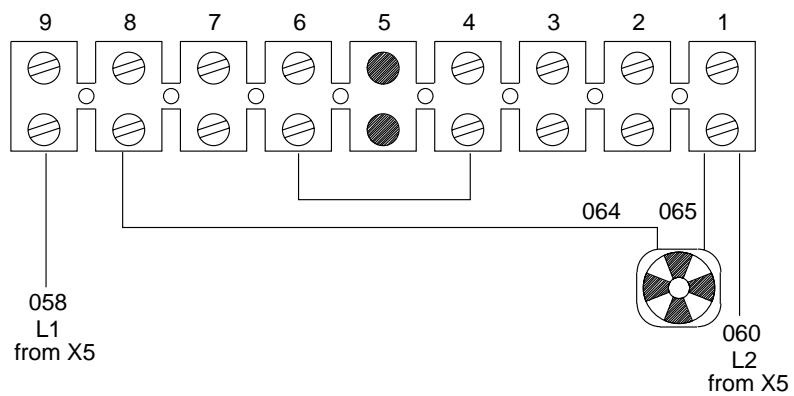
Wiring for 120/240 V (60 Hz) 1PH 3 W - 2 Phases connected+ground

Diagram No. 16

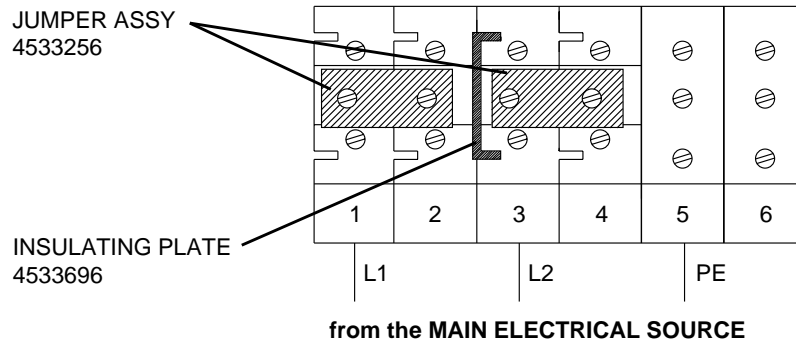
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILoader 7000



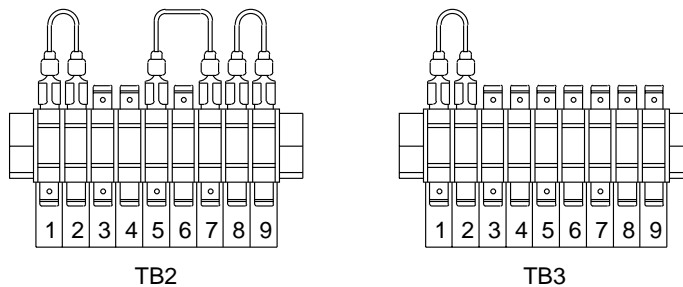
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILoader 7000



TERMINAL BLOCK X5 for the MULTILoader 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR

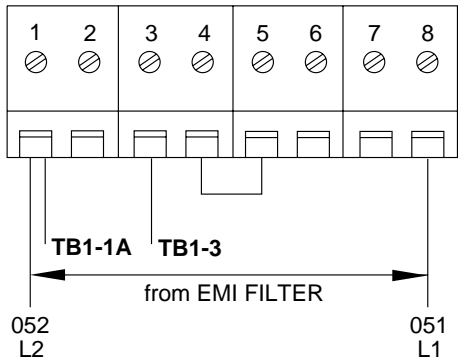


H186_1104EC

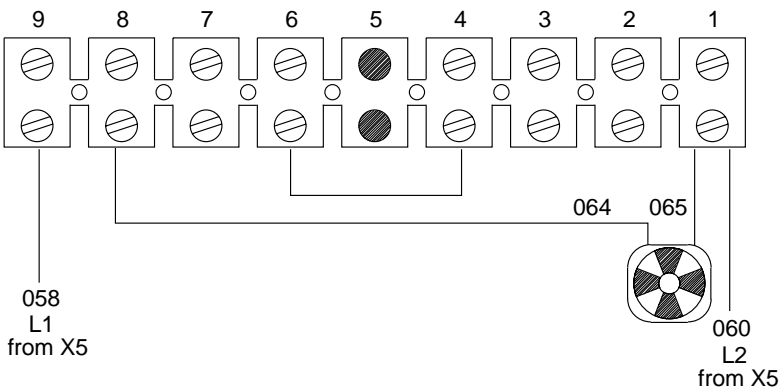
Wiring for 240 V (60 Hz) 1 PH 2 W - 2 Phases connected+ground

Diagram No. 17

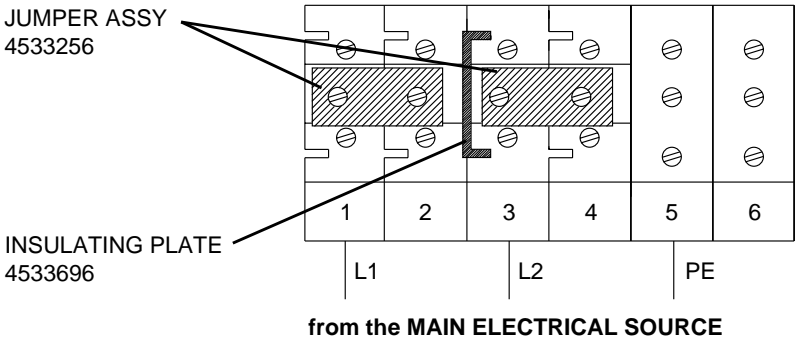
TRANSFORMER No.1 TERMINAL BLOCK for the MULTILOADER 7000



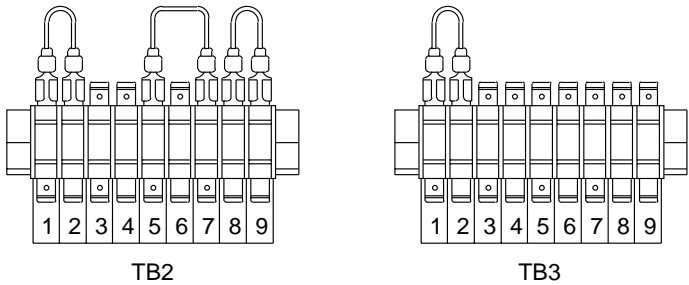
TRANSFORMER No. 2 TERMINAL BLOCK for the MULTILOADER 7000



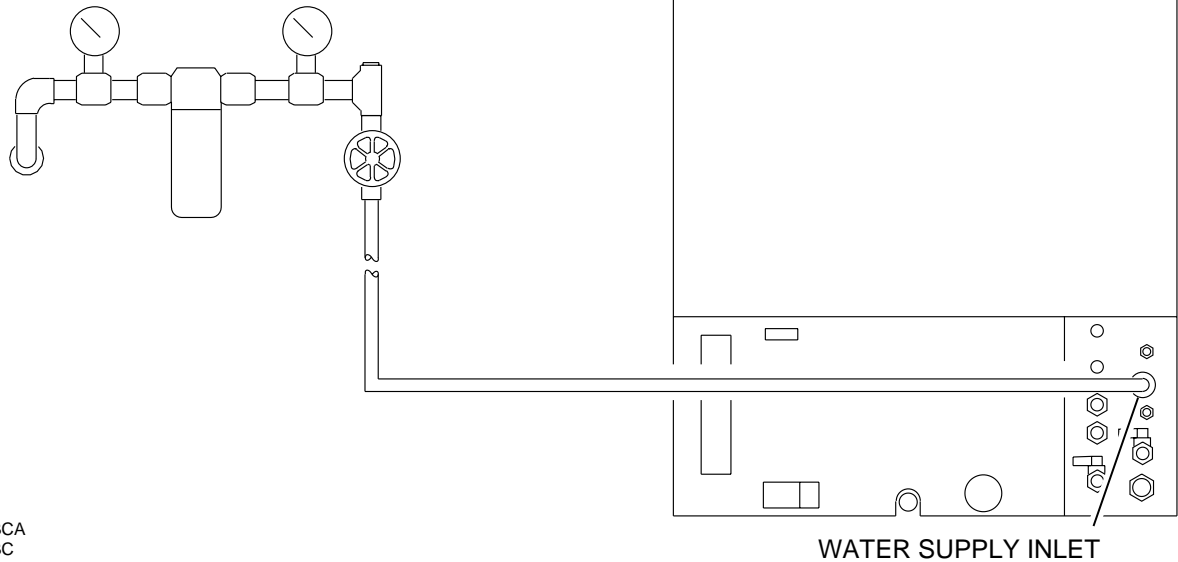
TERMINAL BLOCK X5 for the MULTILOADER 7000



TERMINAL BLOCKS for the 3000 RA PROCESSOR



Connecting the WATER SUPPLY



Important

All plumbing must comply with local and national codes.

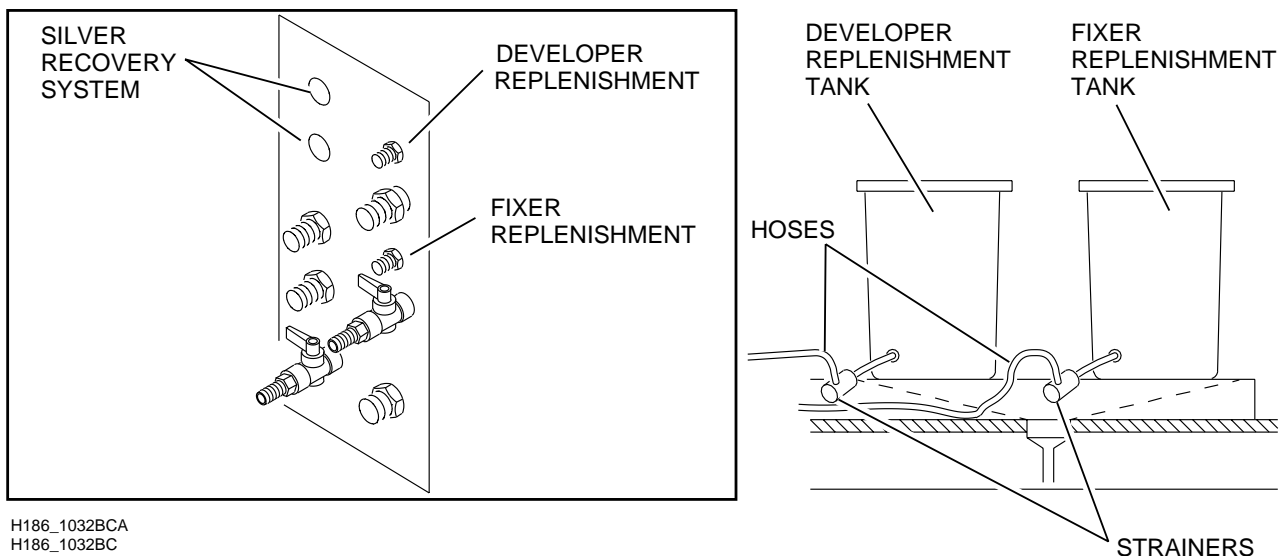
- [1] Connect the input water to the WATER SUPPLY INLET.

Connecting the REPLENISHMENT TANKS and STRAINERS



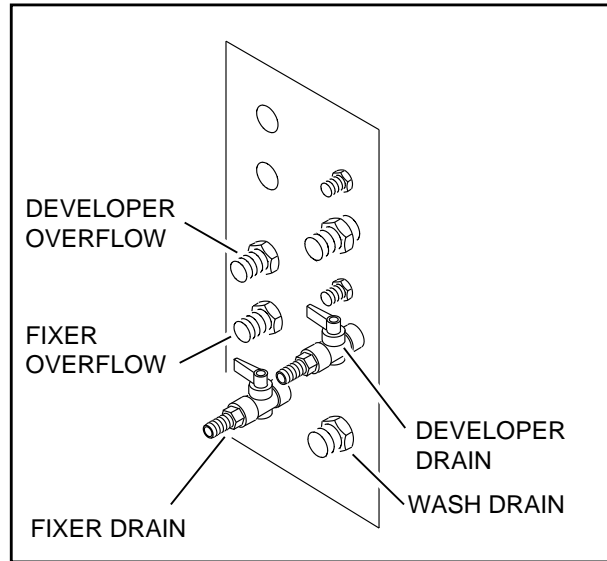
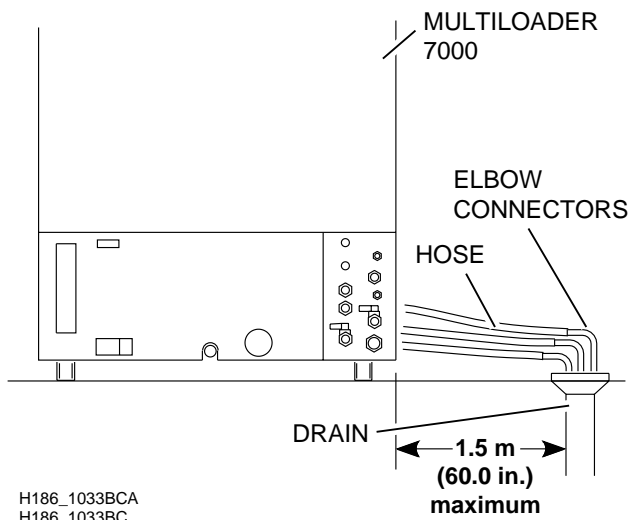
Important

Customers may use an external REPLENISHMENT TANK or a chemical mixing system. An example of a chemical mixing system is a *Kodak AUTOMIXER III*. To install a chemical mixing system, use the INSTALLATION INSTRUCTIONS for the system.



- [1] Use the 9.52 mm (3/8 in.) ID HOSE to install and connect the REPLENISHMENT TANKS or chemical mixing system to the PROCESSOR.
- [2] Install the STRAINERS in the HOSES.
- [3] If the customer has a SILVER RECOVERY SYSTEM, install it.

Connecting the DRAINS



Important

The DRAIN must be made of chemical resistant, noncorrosive material. Use PVC or the equivalent.

[1] Check that the DRAIN HOSES comply with the following requirements:

- The distance from the MULTILOADER 7000 is 1.5 m (60 in.) maximum.
- The HOSE is reinforced flexible TUBING that will not bind.
- The ELBOW CONNECTORS are corrosion resistant.



Note

The customer can order reinforced HOSES and ELBOW CONNECTORS from Service Parts Management.

[2] Check that the DEVELOPER and FIXER DRAINS from the MULTILOADER 7000 are closed.



Important

Any upward slope in the HOSE from the WASH DRAIN will cause the draining wash water to move back into the TANK. If too much water enters the TANK, the water will overflow onto the floor.

[3] Check that the slope of all the HOSES is toward the DRAIN.

[4] Route and connect the following HOSES to the DRAIN and to the floor:

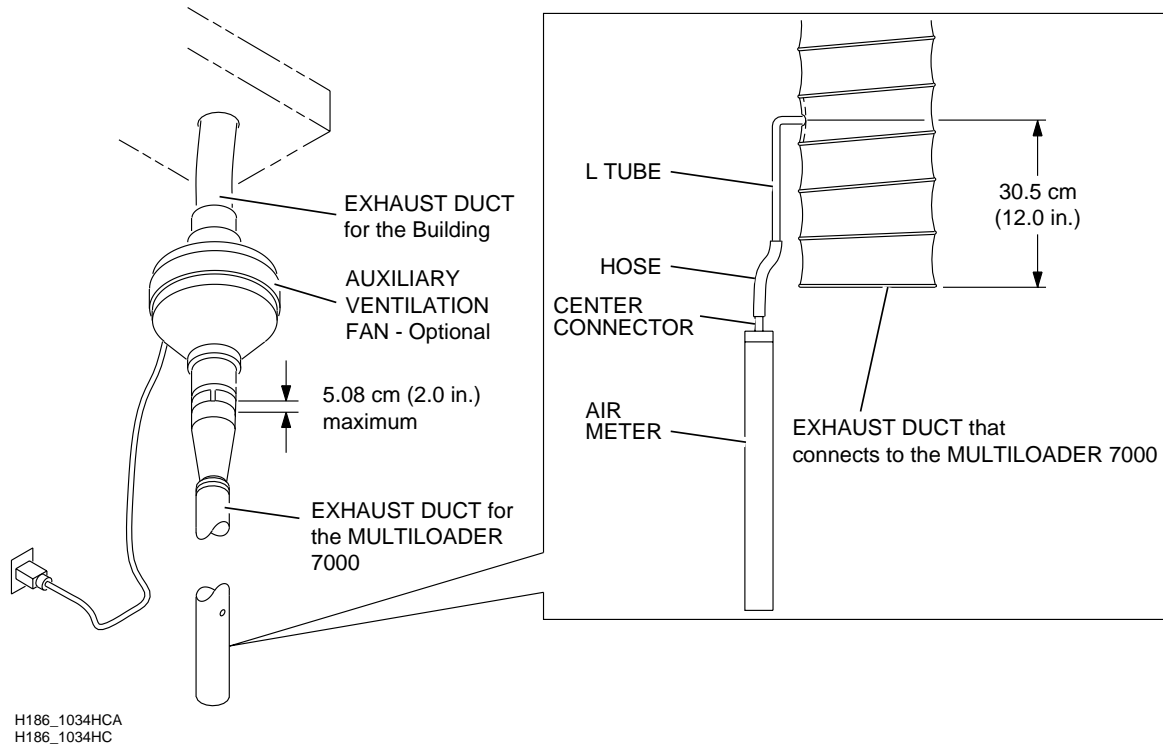
- DEVELOPER OVERFLOW
- DEVELOPER DRAIN
- FIXER DRAIN
- FIXER OVERFLOW to the floor DRAIN or the CHEMICAL RECOVERY CARTRIDGE
- WASH DRAIN



Note

The DRAINS must comply with local codes.

Connecting the EXHAUST SYSTEM



Caution

- The MULTILOADER 7000 must be connected to an EXHAUST SYSTEM with the correct negative pressure.
- Do not install the MULTILOADER 7000 if the pressure of the EXHAUST SYSTEM is not correct. Serious damage to the MULTILOADER 7000 will result.
- Do not connect the EXHAUST DUCT to the MULTILOADER 7000.

[1] Connect the HOSE from the CENTER CONNECTOR on the AIR METER TL-2431 to:

- L TUBE
- CENTER CONNECTOR on the AIR METER



Note

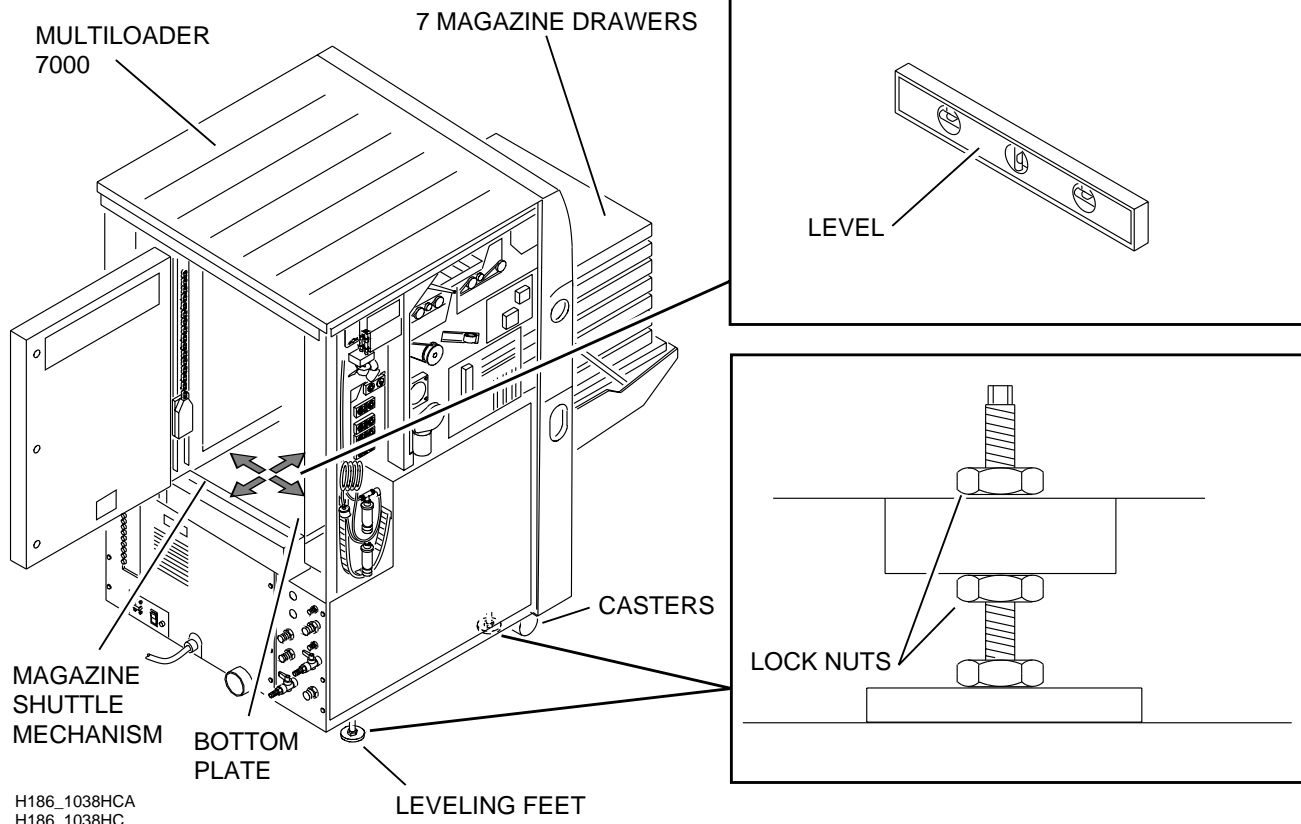
Hold the AIR METER vertically.

- [2] Make a 6.4 mm (0.25 in.) hole approximately 30.5 cm (12 in.) from the end of the EXHAUST DUCT that will be connected to the MULTILOADER 7000.
- [3] Insert the L TUBE into the hole made in [Step 2](#) until the end of the TUBE is flush with the inside of the EXHAUST DUCT.
- [4] Check that the negative pressure is correct:

Diameter of the DUCT	Negative Pressure
7.6 cm (3.0 in.)	0.76 - 1.02 mm (0.03 - 0.04 in.) of water
10.2 cm (4.0 in.)	0.25 - 0.51 mm (0.01 - 0.02 in.) of water

- [5] If necessary, adjust the distance between the EXHAUST DUCT for the building and the EXHAUST DUCT for the PROCESSOR until the negative pressure is correct. If you cannot obtain the correct negative pressure, the customer must install an AUXILIARY VENTILATION FAN. See the SITE SPECIFICATIONS for the *Kodak X-Omat* MULTILOADER 7000, Publication No. 5E9997.
- [6] Remove the L TUBE from the EXHAUST DUCT and seal the remaining hole.
- [7] Connect the EXHAUST DUCT to the AIR EXHAUST on the PROCESSOR.

Leveling the MULTILOADER 7000



- [1] Check that the 7 MAGAZINE DRAWERS are pulled out.
- [2] Loosen the LOCK NUTS on the 4 LEVELING FEET.
- [3] Rotate all 4 LEVELING FEET clockwise until the MULTILOADER 7000 stands on the LEVELING FEET and the CASTERS do not touch the ground.
- [4] Place the LEVEL on the BOTTOM PLATE of the MAGAZINE SHUTTLE MECHANISM.
- [5] Check that the MULTILOADER 7000 is level from front to back and side to side.
- [6] If the MULTILOADER 7000 is not level adjust the LEVELING FEET.
- [7] Check that the CASTERS do not touch the floor.
- [8] Tighten the LOCK NUTS on the LEVELING FEET.

Installing the SEISMIC BRACKETS

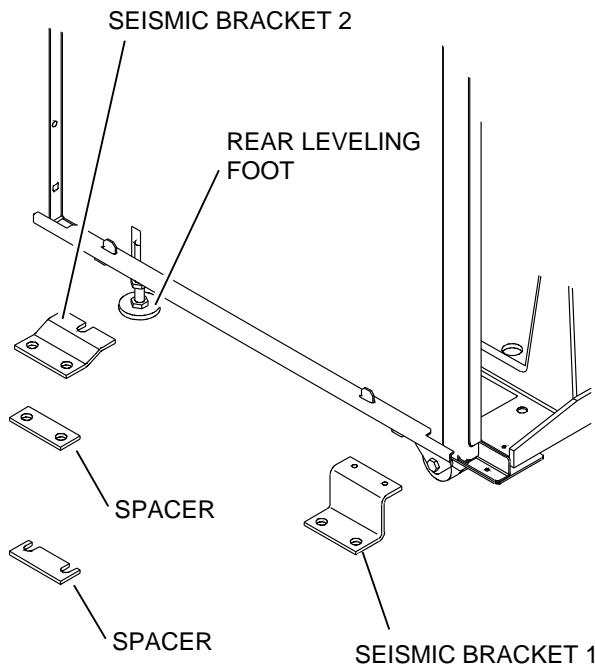


Important

Observe your local building regulations. The hardware is not included in the KIT and must be provided by the customer.

The SEISMIC MOUNT KIT 9408948 includes:

Description	Quantity
SEISMIC BRACKET 1	2
SEISMIC BRACKET 2	2
SPACER - 1.5 mm	6
SPACER - 0.5 mm	6

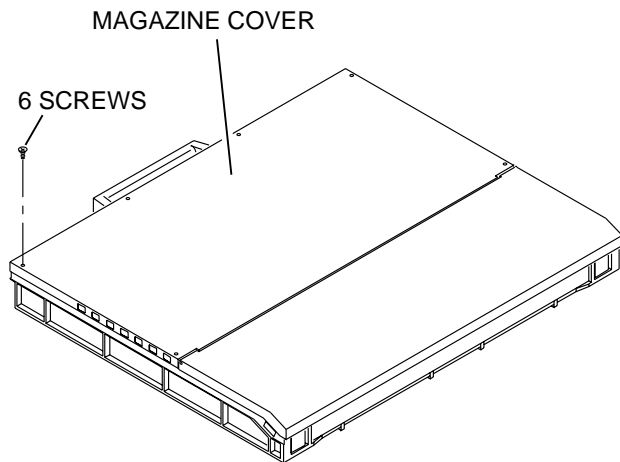


- [1] Install the SEISMIC BRACKET 1 to each side of the MULTILOADER 7000. Use SCREWS from the CASTERS.
- [2] Slide the SEISMIC BRACKET 2 over the REAR LEVELING FOOT on each side of the MULTILOADER 7000.
- [3] Use the SPACERS as necessary between the SEISMIC BRACKETS and the floor.
- [4] Mark the position of the holes on the floor.
- [5] Drill the holes into the floor.
- [6] Fasten the SEISMIC BRACKETS to the floor.

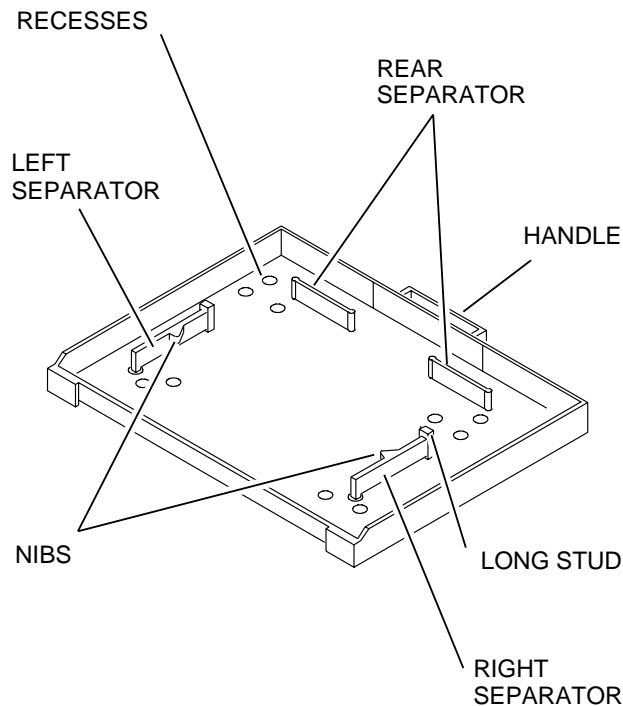
H186_1047GCA
H186_1047GC

Section 6: Completing the Installation

Adjusting the Size of the MAGAZINES



H186_1077ACB
H186_1077AC



H186_1039GCA
H186_1039GC

[1] Place the MAGAZINE on a flat surface with the bottom up.

[2] Remove:

- 6 SCREWS
- MAGAZINE COVER



Important

Do not use CODE BRACKETS in the MULTILOADER 7000.

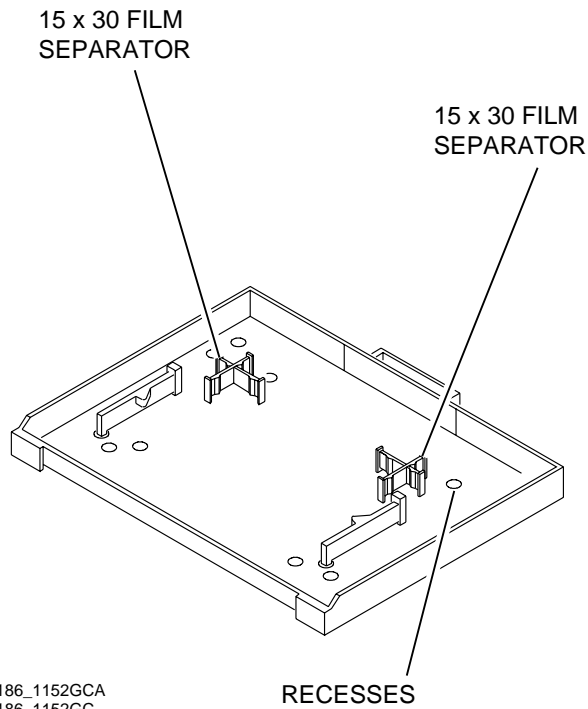
[3] Place the LEFT, RIGHT and REAR SEPARATORS in the RECESSES corresponding to the selected film size. The film sizes are indicated on the RECESSES.



Important

You must install the LEFT and RIGHT SEPARATORS correctly.

[4] Check that the LEFT and RIGHT SEPARATORS are installed correctly with the long STUD toward the HANDLE and the NIBS pointing toward the film.



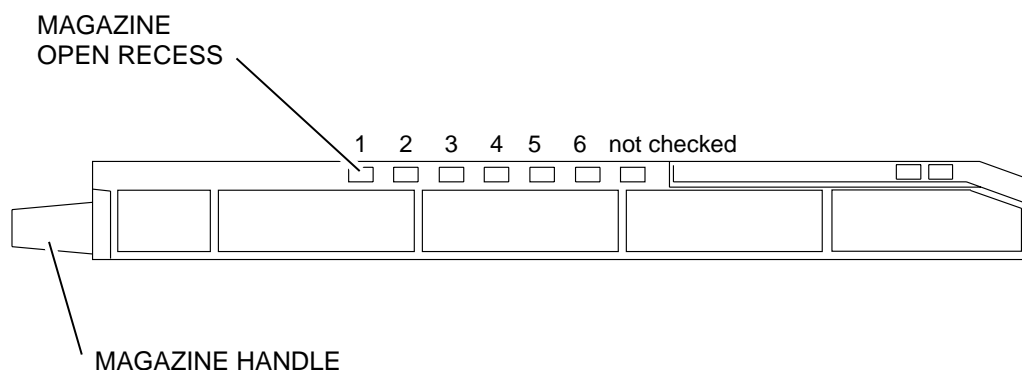
[5] Place the 2 15 x 30 FILM SEPARATORS in the RECESSES. See the INSTALLATION INSTRUCTIONS for the 15 x 30 MAGAZINE KIT for the *Kodak X-Omat* MULTILOADER 7000, Publication No. 4E9248.

- [6] Install:
- 6 SCREWS
 - MAGAZINE COVER

Installing the REFLECTIVE STICKERS

Size and Type Code for the REFLECTIVE STICKERS

Format	TYPE 1						TYPE 2					
	1	2	3	4	5	6	1	2	3	4	5	6
18 x 24	1	0	0	0	0	0	1	0	0	0	1	0
24 x 24	0	1	0	0	0	0	0	1	0	0	1	0
30 x 35	0	1	1	0	0	0	0	1	1	0	1	0
35 x 35	0	0	1	0	0	0	0	0	1	0	1	0
18 x 43	1	0	0	1	0	0	1	0	0	1	1	0
24 x 30	0	1	0	1	0	0	0	1	0	1	1	0
35 x 43	0	0	1	1	0	0	0	0	1	1	1	0
30 x 40	0	1	1	1	0	0	0	1	1	1	1	0
8 x 10 CRT	1	1	0	0	0	0	1	1	0	0	1	0
8 x 10	1	0	1	0	0	0	1	0	1	0	1	0
10 x 12	1	1	1	1	0	0	1	1	1	1	1	0
11 x 14	1	1	1	0	0	0	1	1	1	0	1	0
15 x 30	0	0	0	0	1	0	0	0	0	0	0	1
20 x 40	1	0	1	1	0	0	1	0	1	1	1	0
18 x 24 MIN-R2	0	0	0	1	0	0	0	0	0	1	1	0
24 x 30 MIN-R2	1	1	0	1	0	0	1	1	0	1	1	0
uncoded	0	0	0	0	0	0	0	0	0	0	0	0



H186_8001BCB
H186_8001BC

[1] Apply the correct REFLECTIVE STICKER to the MAGAZINE OPEN RECESS. See the Size and Type Codes Table.

Note

For the correct location, the MAGAZINE OPEN RECESS POSITION 1 is toward the MAGAZINE HANDLE.

Preparing the CASSETTES



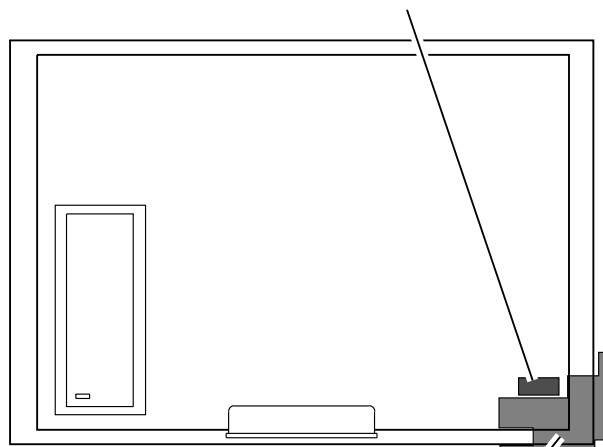
Important

The following CASSETTES are used for TYPE 2 coding only.

TYPE 2 - Kodak X-Omatic CASSETTE C-1

[1] Place the REFLECTIVE STICKERS on the CASSETTE C-1.

REFLECTIVE STICKER 8 X 15 mm

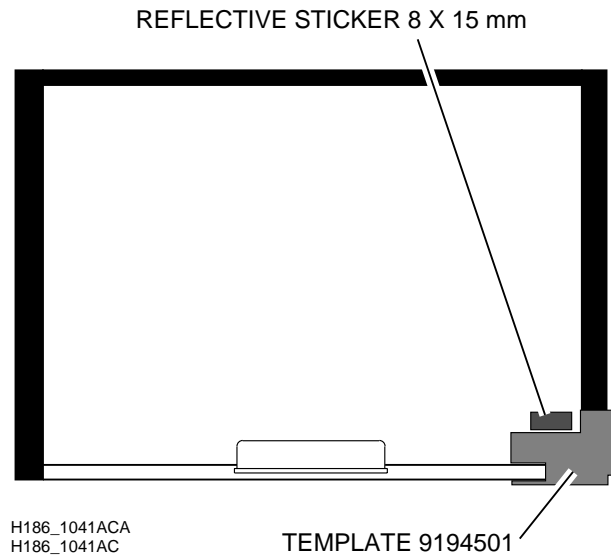


H186_1040ACA
H186_1040AC

TEMPLATE 9194501

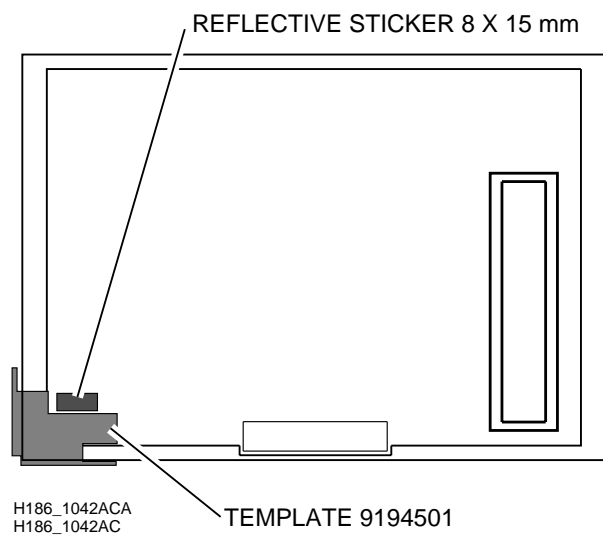
TYPE 2 - Kodak X-Omatic CASSETTE C-2

- [2] Place the REFLECTIVE STICKER on the CASSETTE C-2.

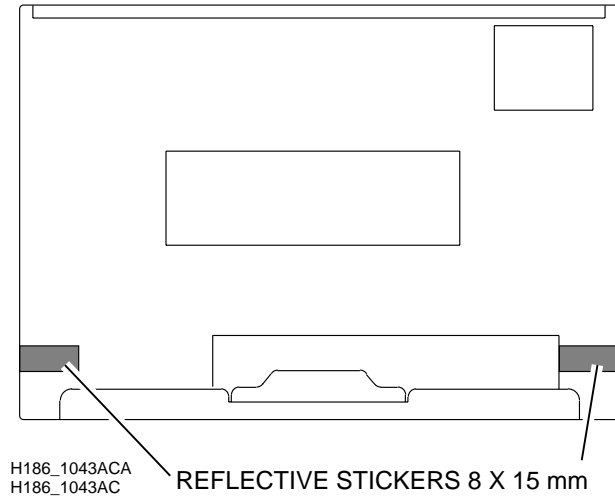


TYPE 2 - Kodak X-Omatic CASSETTE C-3

- [3] Place the REFLECTIVE STICKERS on the CASSETTE C-3.

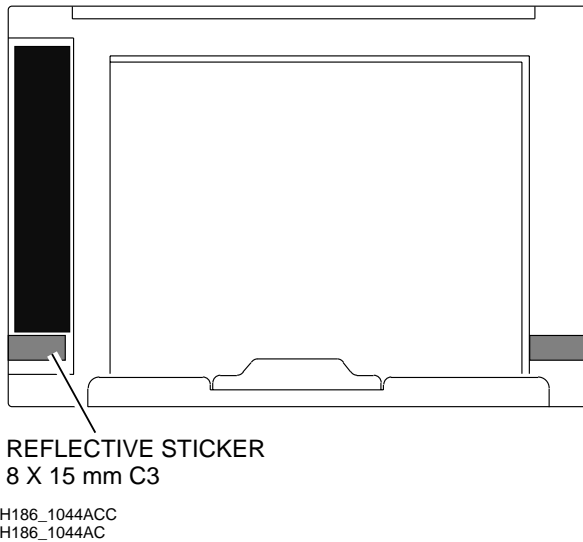


TYPE 2 - Kodak MIN-R CASSETTE



- [4]** Place the REFLECTIVE STICKERS on both sides of the CASSETTE.

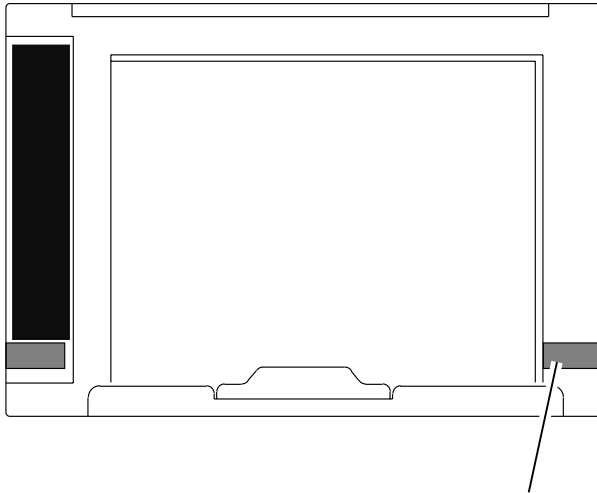
TYPE 2 - CRT CASSETTES C-3, VIDEO FILM HOLDERS



- [5]** Place the REFLECTIVE STICKER on the left side of the CRT CASSETTE C-3.

TYPE 2 - CRT CASSETTES C-1, VIDEO FILM HOLDERS

- [6]** Place the REFLECTIVE STICKER on the right side of the CASSETTE C-1 as indicated in the graphic.



H186_1044ACB
H186_1044AC

REFLECTIVE STICKER
8 X 15 mm C1

Section 7: Checking the Operation of the PROCESSOR

Installing the Chemicals

- [1] For correct operation of the LEVEL SENSOR, add 500 ml (8 fl oz) of:
- DEVELOPER to the DEVELOPER TANK
 - FIXER to the FIXER TANK
- [2] Slowly fill the DEVELOPER and FIXER TANKS with water to the overflow limit.

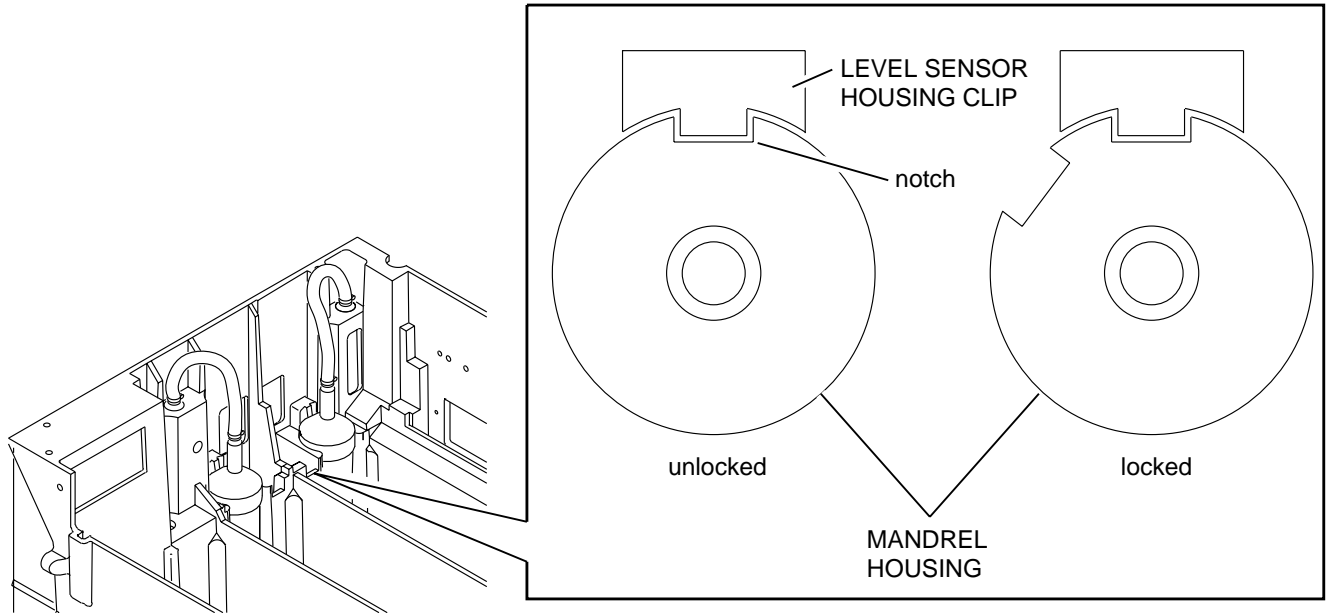


Warning

Dangerous Voltage

- [3] Energize the main power.
- (a) Move the MAIN POWER DISCONNECT SWITCH to the "I" position.
 - (b) Move the CIRCUIT BREAKER CB1 to the "I" position.
- [4] Use the "SERVICE SOFTWARE" to check the operation of the following components:
- DRYER BLOWER
 - REPLENISHMENT PUMPS
 - RECIRCULATION PUMP - operate the PUMP for a minimum of 10 seconds to remove any air in the system
 - WATER SOLENOID
 - DEVELOPER SOLENOID
 - DEVELOPER and FIXER SENSORS
- [5] Check:
- water drains smoothly
 - plumbing system does not leak
- [6] De-energize the main power.

Installing the DEVELOPER FILTER

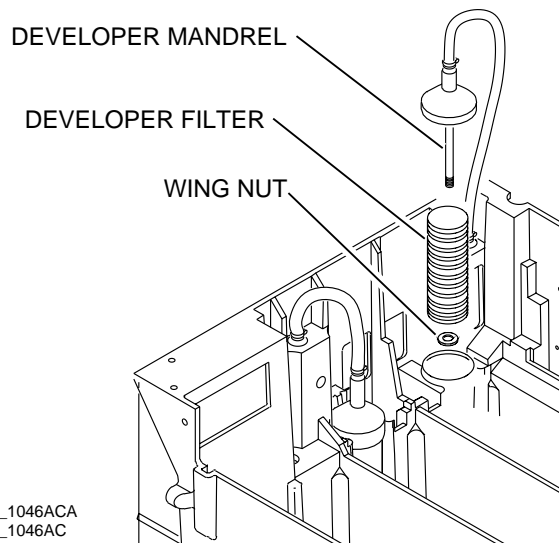


H186_1045HCA
H186_1045HC

[1] Rotate the MANDREL HOUSING to the unlocked position.

Note

The DEVELOPER HOUSING is in the unlocked position when the notch aligns with the LEVEL SENSOR HOUSING CLIP.



H186_1046ACA
H186_1046AC

[2] Remove:

- DEVELOPER MANDREL
- WING NUT

[3] Install:

- DEVELOPER FILTER
- WING NUT
- DEVELOPER MANDREL

[4] Check:

- DEVELOPER MANDREL is seated correctly
- MANDREL HOUSING is in the locked position

Installing the Chemicals



Important

The REPLENISHMENT PUMPS must be calibrated correctly to obtain the correct image quality and performance.

- [1] Calibrate the REPLENISHMENT PUMPS. See “Calibrating the Replenishment System” in the User Guide, Publication No. 7E6174.
- [2] Drain the water from the TANKS.
- [3] Mix the chemicals and fill the PROCESSING TANKS.

Assembling the MULTILOADER 7000

- [1] Move the PROCESSOR into the MULTILOADER 7000.
- [2] Check that the PROCESSOR is in the locked position.



Important

The 2 SIDE PANELS, BACK PANEL and TOP COVER must be connected to ground.

- [3] Reverse [Step 6](#) - [Step 7](#) on Page [11](#).
- [4] Check that the GROUND WIRES are connected to the PANELS and TOP COVER.

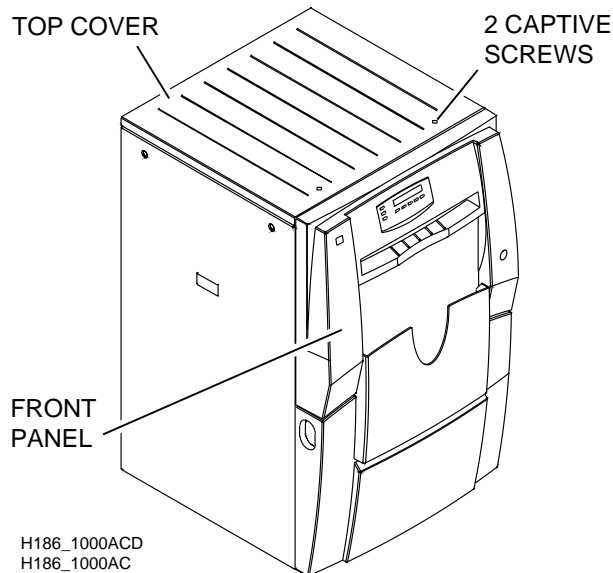
Section 8: Configuring the MULTILoader 7000

Setting the DISPLAY BACKLIGHT SWITCH S1-4



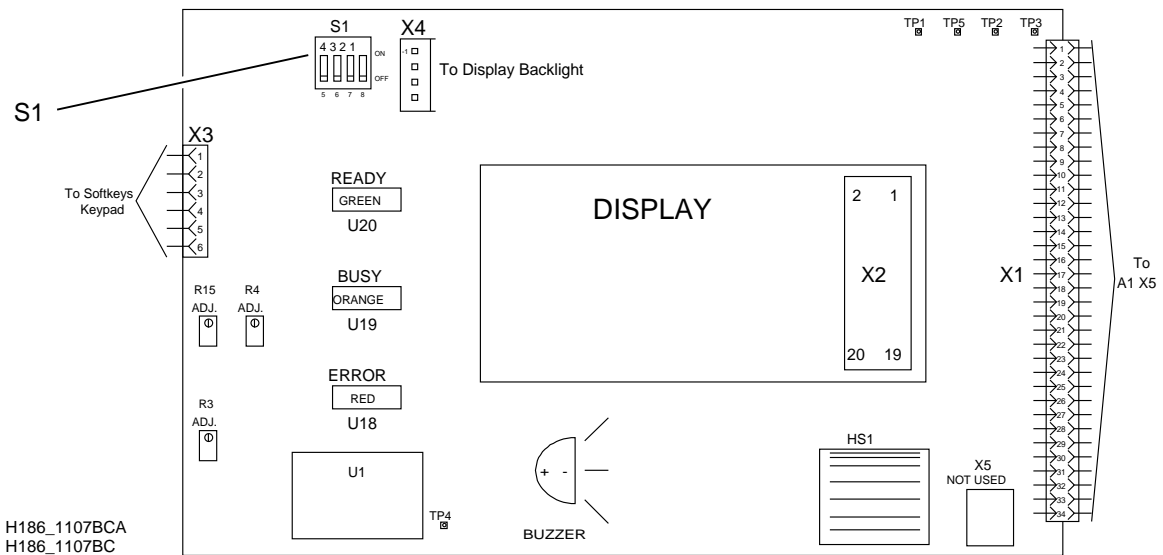
Important

The factory setting for the DISPLAY BACKLIGHT SWITCH S1-4 is "On". If the MULTILoader is installed in a darkroom, the light from the DISPLAY PANEL can fog films.



[1] Do the following to enable the DISPLAY DIMMER.

- (a) Rotate the 2 CAPTIVE SCREWS 1/4 turn counterclockwise and open the TOP COVER.
- (b) Remove the FRONT PANEL.



[2] Set SWITCHES S1-1 - S1-4 on the OPERATOR INTERFACE BOARD A2 to the "Off" position.



Note

- The DISPLAY BACKLIGHT is "On" if the roomlight is >120 lux.
- The DISPLAY BACKLIGHT is "Off" if the roomlight is <30 lux.

[3] Adjust the POTENTIOMETER R3 to change the light level when the DISPLAY BACKLIGHT is not illuminated.

[4] Install the FRONT PANEL.

[5] Close the TOP COVER and rotate the 2 CAPTIVE SCREWS 1/4 turn clockwise.

Setting up the LAPTOP COMPUTER



Important

- The OPERATING & LANGUAGE SOFTWARE is installed at the factory on all new MULTILOADER 7000 systems.
- The SERVICE SOFTWARE must be installed on your LAPTOP COMPUTER. See ["Installing the SERVICE SOFTWARE on the LAPTOP COMPUTER" on Page 62.](#)

Entering Unit Data

The following data must be entered in the MULTILOADER 7000 using the LAPTOP:

- Serial number
- Unit ID
- Customer name
- Location
- Address
- Country
- Installation date



Note

This data displays when the SERVICE MODE is entered. The data is stored in the DIRECTORY MLSERVICE\Machine\ST_XXXX.dat.

- [1] To enter the unit data, start the SERVICE SOFTWARE. See ["Starting the SERVICE SOFTWARE" on Page 64.](#)
- [2] From the Start menu, select **SERVICE MULTILOADER** to display the "UNIT DATA".
- [3] Select:
 - **Continue**
 - **YES** to download the ERROR HISTORY files
- [4] From the Main menu, select **CHANGE MULTILOADER DATA.**
- [5] Select **CHANGE UNIT DATA.**
- [6] Type the UNIT DATA information.
- [7] Select **Store Unit Data.**
- [8] Select **OK.**

Setting the Time and Date



Important

Check that the time and date on the LAPTOP COMPUTER are set correctly.

- [1] From the CHANGE MULTILOADER DATA menu, select **SET TIME AND DATE.**
- [2] Select:
 - **TIME AND DATE OF PC**
 - **STORE IN ML**
 - **OK**
 - **RETURN**
- [3] Exit the MULTILOADER SERVICE SOFTWARE.

Downloading the Languages to the MULTILOADER 7000



Important

The following 4 languages are the default languages and are factory installed on the MULTILOADER 7000. If no other languages are required, do not download the OPERATING SOFTWARE to the MULTILOADER 7000 at installation.

- German
- French
- Spanish
- English



Note

English is automatically selected as a language available.

Up to 3 more languages, other than English, can be downloaded to the MULTILOADER 7000. These languages overwrite the installed default languages. The following languages are available:

- Danish
- Dutch
- Finnish
- French
- German
- Italian
- Norwegian
- Portuguese
- Spanish
- Swedish

If less than 3 languages are selected, the selected one plus the remaining default languages are downloaded. See **Example 1 - Example 3.**

Example 1:

Selected languages are SWEDISH and DANISH.

Downloaded languages:

- SWEDISH (selected)
- DANISH (selected)
- SPANISH (default)
- ENGLISH (default)

Example 2:

Selected language is ENGLISH.

Downloaded languages:

- ENGLISH (selected)
- FRENCH (selected)
- SPANISH (default)
- ENGLISH (default)

Example 3:

No language is selected.

Downloaded languages:

- GERMAN (default)
- FRENCH (selected)
- SPANISH (default)
- ENGLISH (default)

Note

If a language other than the default language is required, these languages can be installed on the MULTILOADER 7000 by downloading the SYSTEM SOFTWARE only.

Important

Always select your own language first to override the default languages. The selected languages are indicated with an asterisk. Current versions of the SERVICE SOFTWARE and the OPERATING & LANGUAGE SOFTWARE are packed with the MULTILOADER 7000. You must install the software onto the HARD DRIVE of your LAPTOP COMPUTER. See [“Installing the SERVICE SOFTWARE on the LAPTOP COMPUTER” on Page 62](#) and [“Installing the OPERATING SOFTWARE on the LAPTOP COMPUTER” on Page 64](#).

- [1] To Download the non-default languages to the MULTILOADER 7000:
- (a) From the Main menu, select **INSTALLATION**.
 - (b) From the Software Download menu, select **DOWNLOAD SYSTEM SOFTWARE**.
 - (c) Select the desired languages, up to 3.
 - (d) Select **Continue**.
 - (e) To confirm your language selections, select **YES**
 - (f) To download the SYSTEM SOFTWARE, select **YES**.

Note

The software of the SYSTEM UNIT is now updated. The amber and red LEDs on the DISPLAY PANEL are flashing alternately. After the SYSTEM SOFTWARE is downloaded, error code 00 00 00 00 00 displays and the green LED on BOARD A1 illuminates.

Warning

Dangerous Voltage

- [2] De-energize the MULTILOADER 7000.
- [3] Wait 10 seconds. Energize the MULTILOADER 7000.
- [4] Wait for the green READY LIGHT or a red ERROR LIGHT to display on the OPERATOR CONTROL PANEL of the MULTILOADER 7000.
- [5] Select **OK**.
- [6] Exit the SERVICE SOFTWARE.

Setting the Parameters



Important

- The parameters are set to the default values by manufacturing.
- See the “SERVICE SOFTWARE” for parameters and settings.
- During installation, the following parameters may need to be changed.
 - “DFF” - when installing a DARKROOM FILM FEEDER. [See “Installing the DARKROOM FILM FEEDER” on Page 66.](#)
 - CASSETTE OPEN RETURN - ask the customer for their preference.

CASS OPEN RETURN and DFF PRESENT Parameter Settings

Parameter	Description	Setting
CASS OPEN RETURN	The function to return an empty CASSETTE opened or closed can be set with this parameter.	<ul style="list-style-type: none"> • 00 = An empty CASSETTE will be returned closed. • 01 = An empty CASSETTE will be returned opened. • 00 = DEFAULT
DFF PRESENT	If a DFF is installed, this parameter must be changed.	<ul style="list-style-type: none"> • 00 = No DFF installed. • 01 = DFF is installed. • 00 = DEFAULT

Do the following to change or set a parameter:

- [1] Start the SERVICE SOFTWARE. See [“Starting the SERVICE SOFTWARE” on Page 64.](#)
- [2] Select:
 - **SERVICE MULTILOADER** to go to the Main menu
 - **CHANGE MULTILOADER DATA**
 - **CHANGE PARAMETER**
- [3] Select the parameter to be changed by placing the cursor in the correct parameter box.



Note

An explanation of the selected PARAMETER, range, and default values will display in the “STATUS MESSAGES” box.

- [4] Type the new value.
- [5] Select **STORE PARAMETERS**.
- [6] Select **RETURN**.
- [7] Exit the SERVICE SOFTWARE.
- [8] Check for correct operation of the MULTILOADER 7000.

Section 9: Installing the Software

Installing the SERVICE SOFTWARE on the LAPTOP COMPUTER



Important

- This procedure installs the new version of software on the HARD DRIVE of the LAPTOP COMPUTER.
- The new version deletes the old version of SERVICE SOFTWARE on the HARD DRIVE of the LAPTOP COMPUTER.
- The configuration of the COMMUNICATIONS PORT on the LAPTOP COMPUTER must be COM PORT 1.

From a CD-ROM

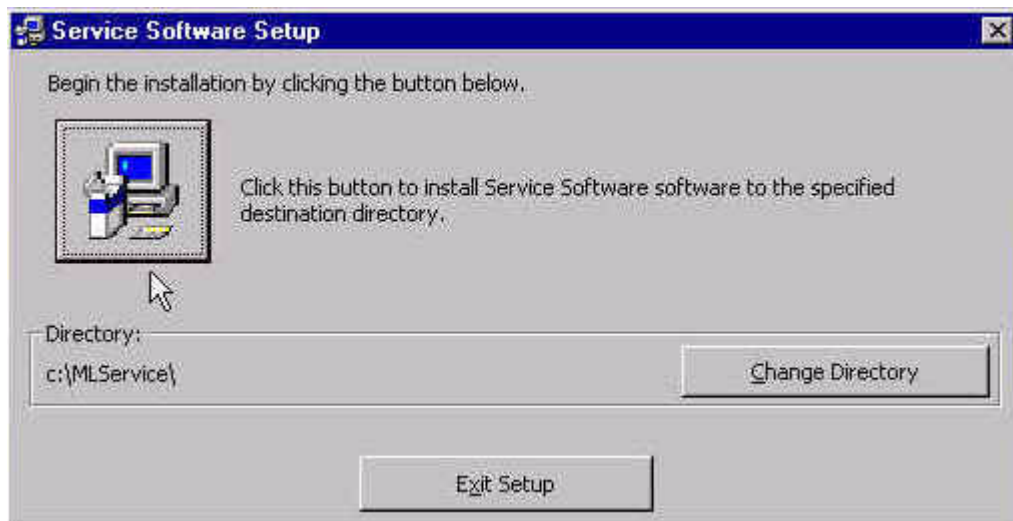


Important

Close any applications that are open on the LAPTOP COMPUTER before doing this installation.

- [1] Insert the "OPERATING and SERVICE SOFTWARE for the X-OMAT Multi/Miniloader" CD into the CD-ROM DRIVE.
- [2] Open *Windows Explorer*.
- [3] Select "CD Drive."
- [4] Double-click "install.bat".
- [5] Type: **A** for "A XML7000/XML300/XML300Plus Service Software for Windows Version X.XX."
- [6] Is an application open?

Yes	No
<ol style="list-style-type: none"> a. Select Exit Setup. b. Use the instructions on the screen. 	Click [OK].



- [7] Click the icon to begin the installation of the SERVICE SOFTWARE.



Note

"ML Service setup was completed successfully" appears on the screen.

- [8] Click [OK].
- [9] Press any key to continue.
- [10] Click the "Create" icon to make a shortcut on your LAPTOP COMPUTER.

[11] Click [Finish Setup].

[12] Press:

- [Enter]
- [Enter]

[13] Type **Q** for “Quit Install Manager”.

[14] Close all windows.

From a FLOPPY DISK



Important

You must close any applications on the LAPTOP COMPUTER before doing this installation.

[1] Insert the “SERVICE SOFTWARE” DISK 1 into DRIVE A.

[2] Select **Start>Run**.

[3] In the “Run” window:

- (a) Type: **a:\install**.
- (b) Click [OK].

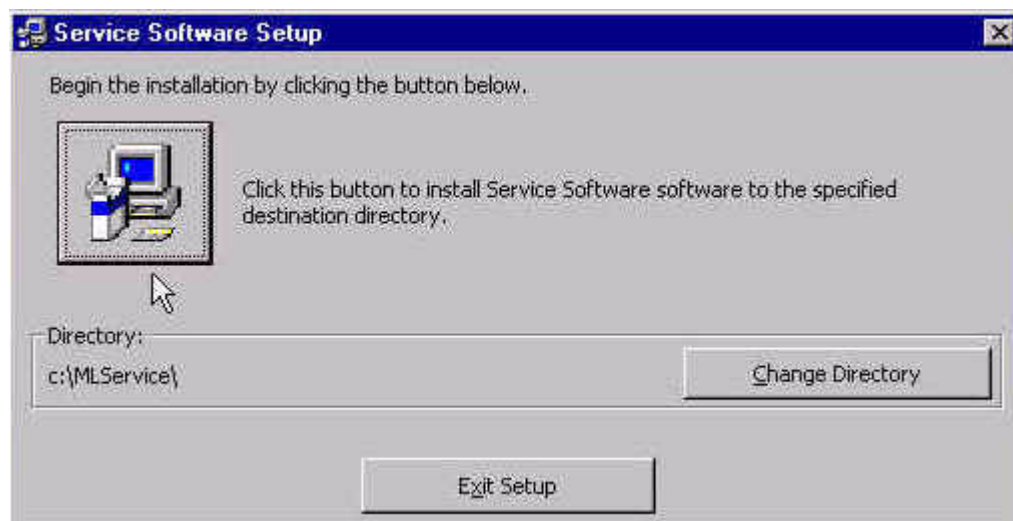
[4] Insert:

- “SERVICE SOFTWARE” DISK 2 into DRIVE A
- “SERVICE SOFTWARE” DISK 1 and 2 into DRIVE A again

[5] Click [OK].

[6] Is an application open?

Yes	No
a. Select Exit Setup . b. Use the instructions on the screen.	Click [OK].



[7] Click the icon to begin the installation of the SERVICE SOFTWARE.



Note

“ML Service setup was completed successfully” appears on the screen.

[8] Click [OK].

Note

Keep the SERVICE SOFTWARE DISK 2 in DRIVE A.

[9] Press any key to continue.

[10] Use the instructions on the screen.

[11] When the installation is complete, close all windows.

Starting the SERVICE SOFTWARE

[1] Energize the MULTILOADER 7000.

[2] Connect the LAPTOP COMPUTER to the MULTILOADER 7000. Use DATA CABLE TL-4391.

[3] Energize the LAPTOP COMPUTER.

[4] Select **Start>Programs>ML Service**.

Installing the OPERATING SOFTWARE on the LAPTOP COMPUTER

Important

- This procedure will install the new version of the OPERATING SOFTWARE for the MULTILOADER 7000, on the HARD DRIVE of the LAPTOP COMPUTER in the **C:\MLService\Download** directory.
- The new software version will delete the old version of OPERATING SOFTWARE on the HARD DRIVE of the LAPTOP COMPUTER.

From a CD-ROM

[1] Insert the “OPERATING and SERVICE SOFTWARE for the X-OMAT Multi/Miniloader” CD into the CD-ROM DRIVE.

[2] Open *Windows Explorer*.

[3] Select “CD Drive”.

[4] Double-click “install.bat”

[5] Type: **B** for “B XML7000 Operating Software Version X.XX”.

[6] Use the instructions on the screen.

Note

After the OPERATING SOFTWARE downloads successfully, an information screen displays to explain the new components of the software.

[7] Type: **Q** for “Quit Install Manager”.

[8] Close all windows.

From a FLOPPY DISK

[1] Insert the “OPERATING SOFTWARE” DISK into DRIVE A.

[2] Select **Start>Run**.

[3] In the “Run” window:

(a) Type: **a:\install**.

(b) Click [OK].

[4] When the installation is complete, close the window.

Downloading the OPERATING SOFTWARE from the LAPTOP COMPUTER to the MULTILOADER 7000



Important

- The new version of the OPERATING & LANGUAGE SOFTWARE is for all new MULTILOADER 7000 systems.
- This procedure upgrades the MULTILOADER 7000 when a new version of the OPERATING SOFTWARE is necessary.
- The new software version deletes the old version of OPERATING SOFTWARE in the MULTILOADER 7000.

[1] Select **Start>Programs>ML Service>Service Multiloader**.

[2] On the "Unit Data" screen, select "Continue."

[3] Click [Yes] to upgrade "History Files".

[4] Click [Installation]. The "Software Download" menu displays the following directories:

- "DOWNLOAD SYSTEM SOFTWARE"
- "DOWNLOAD CASSETTE SOFTWARE"
- "DOWNLOAD MAGAZINE SOFTWARE"
- "DOWNLOAD MSM SOFTWARE"
- "DOWNLOAD ALL SECTIONS"



Note

"DOWNLOAD ALL SECTIONS" is only available on SERVICE SOFTWARE higher than version 1.10.

[5] Select the first software section to download or "DOWNLOAD ALL SECTIONS."

[6] Use the instructions on the screen.



Note

"Download Completed Successfully" appears on the screen.

[7] Do [Step 5](#) - [Step 6](#) until all software sections have the new software loaded.

[8] Click [Return].

[9] Exit the SERVICE SOFTWARE.

[10] Check for the correct operation of the MULTILOADER 7000.

Section 10: Installing the DARKROOM FILM FEEDER

Necessary Tools and Parts



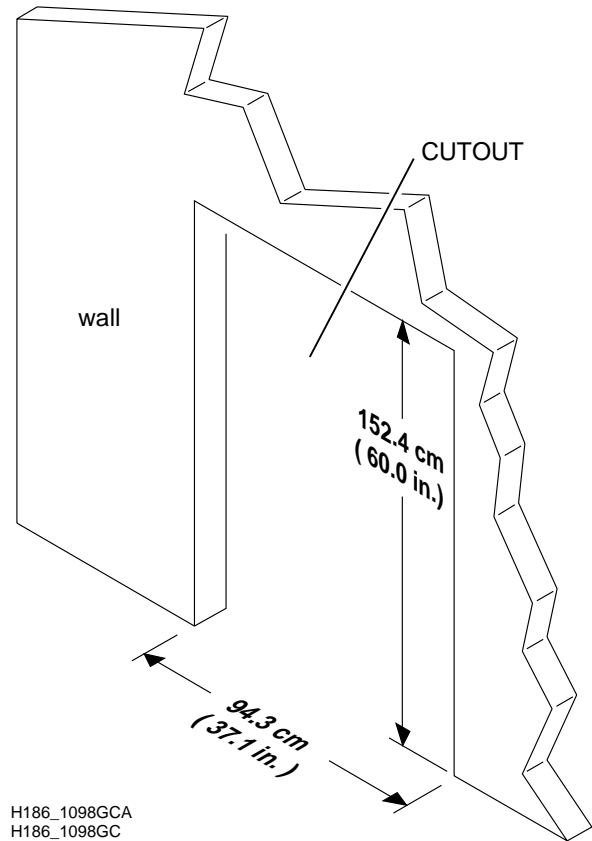
Important

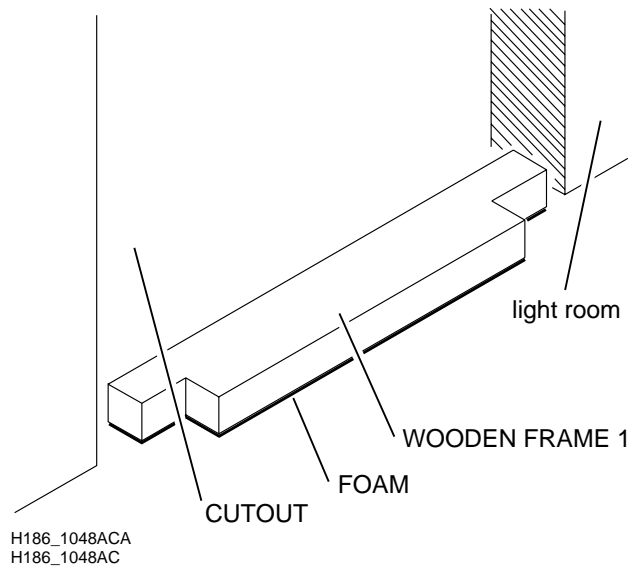
- OPERATING SOFTWARE Version 1.20 or higher must be loaded on the MULTILOADER 7000.
- 14 SCREWS are necessary to install the FRAME of the DARKROOM FILM FEEDER to the wall. Use the correct SCREWS and DRILL BITS for the type of material of the wall. The SCREWS and DRILL BITS must be purchased locally.

Special Tools	Description
ELECTRIC DRILL	TL-1466
HEX WRENCH	2 mm (0.08 in.)

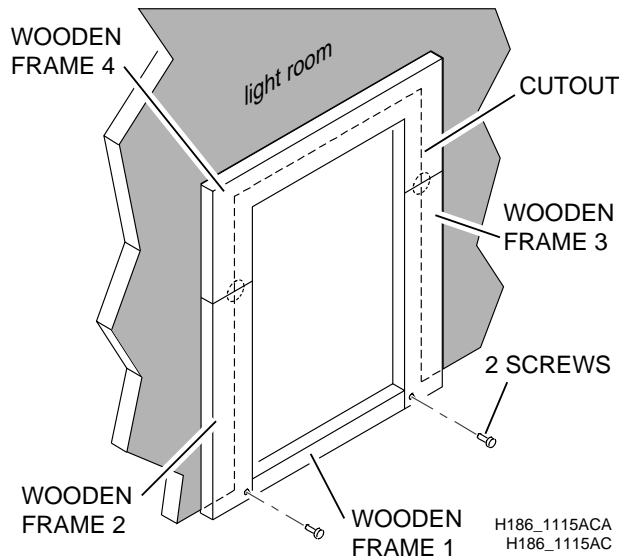
Installing the WOODEN FRAME

[1] Check that the CUTOUT in the wall is correct. See the graphic.

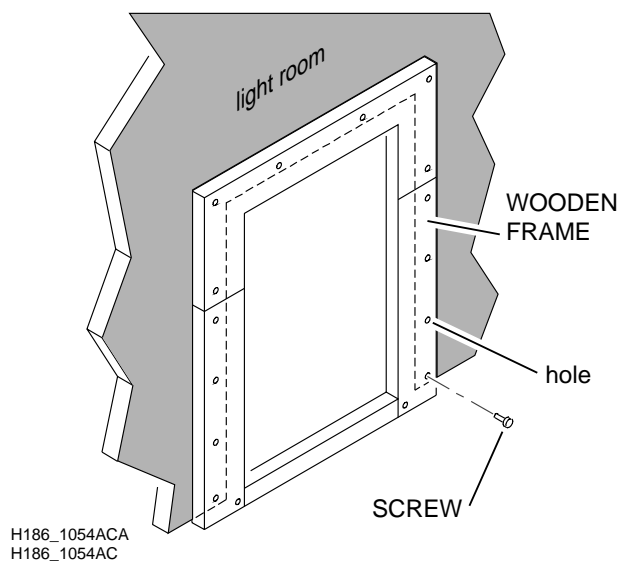




- [2] Move the WOODEN FRAME 1 into the correct area on the ground in the CUTOUT. The FOAM must be on the bottom of WOODEN FRAME 1.



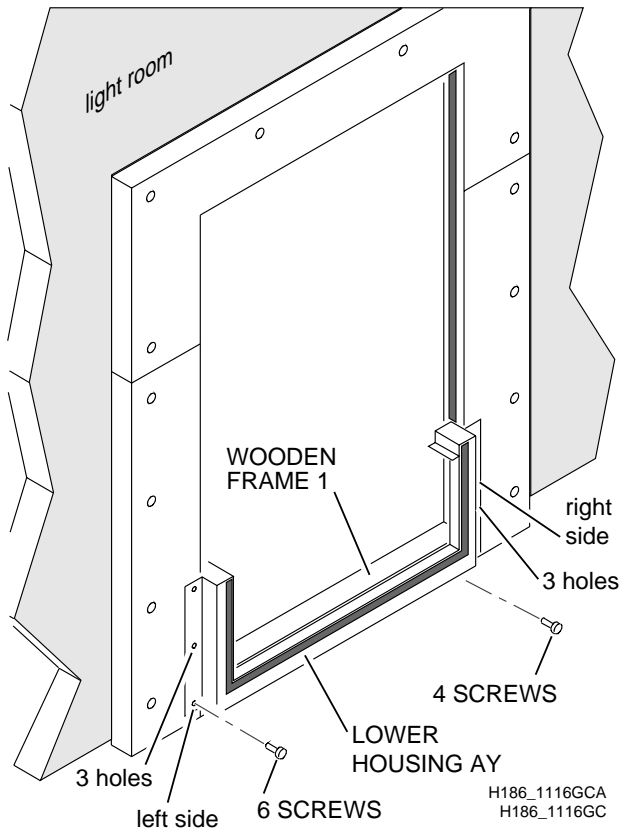
- [3] Fasten WOODEN FRAME 2 and WOODEN FRAME 3 to WOODEN FRAME 1. Use 2 SCREWS from the PREPACK KIT.
- [4] Place WOODEN FRAME in the center of the CUTOUT. Use tape to temporarily hold the FRAME to the wall.
- [5] Place WOODEN FRAME 4 on top of WOODEN FRAME 2 and 3. Use tape to temporarily hold the FRAME to the wall.



Important

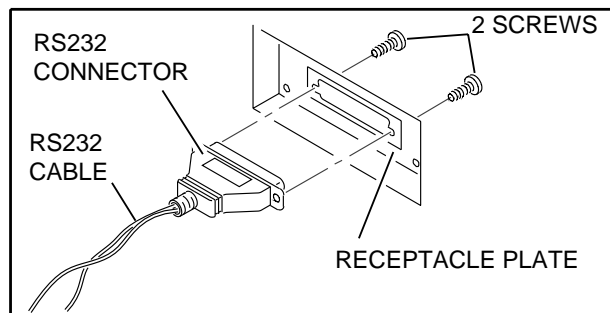
The DRILL BIT in [Step 6](#) must go through the WOODEN FRAME and make a mark on the wall.

- [6] Drill the holes indicated in the graphic through the WOODEN FRAME. Push the ELECTRIC DRILL until a mark is visible on the wall.
- [7] Remove the WOODEN FRAME from the wall.
- [8] Use the correct DRILL BIT, for the size of the SCREW and the type of material of the wall, to drill the holes into the wall.
- [9] Install the WOODEN FRAME to the wall. Use the correct SCREWS for the type of material of the wall.



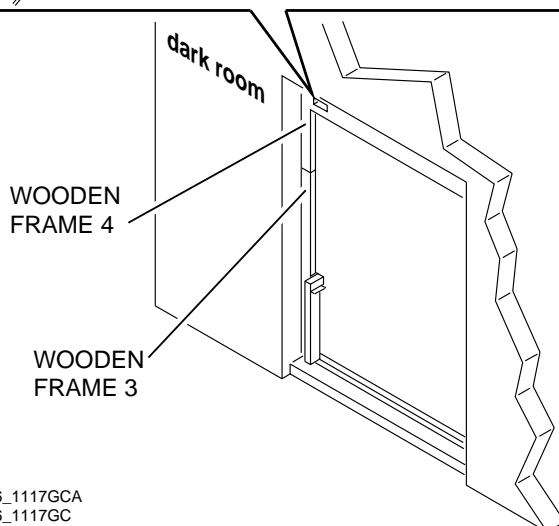
[10] Install the LOWER HOUSING AY to WOODEN FRAME 1.

- (a) Install the 4 SCREWS, from the PREPACK KIT, in the 4 holes on WOODEN FRAME 1.
- (b) Drill 3 holes through the left side and 3 holes through the right side of the LOWER HOUSING AY into the WOODEN FRAMES.
- (c) Install the 6 SCREWS, from the PREPACK KIT, through the left and right sides of the LOWER HOUSING AY into the WOODEN FRAME.



[11] If necessary, connect the RS232 CONNECTOR to the RECEPTACLE PLATE. Use the 2 SCREWS from the PREPACK KIT.

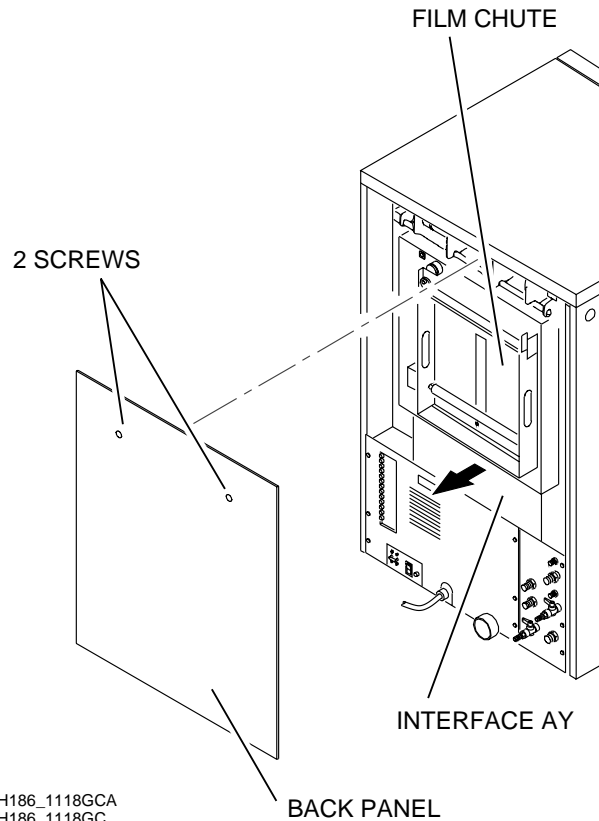
[12] Route the RS232 CABLE next to the side of WOODEN FRAME 3.



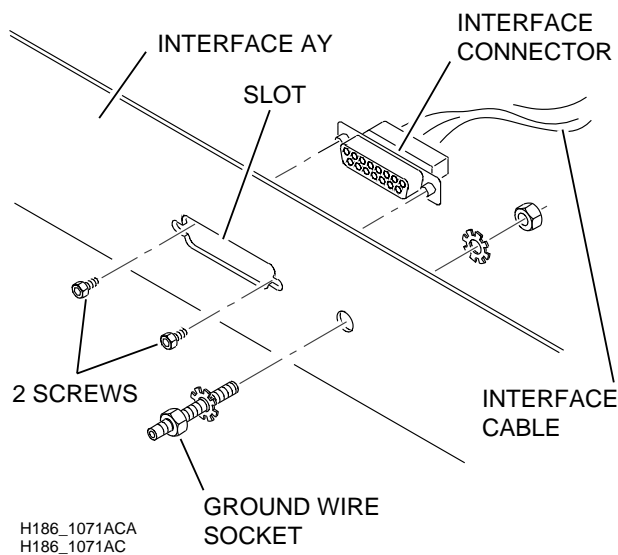
Installing the INTERFACE CABLE


ESD

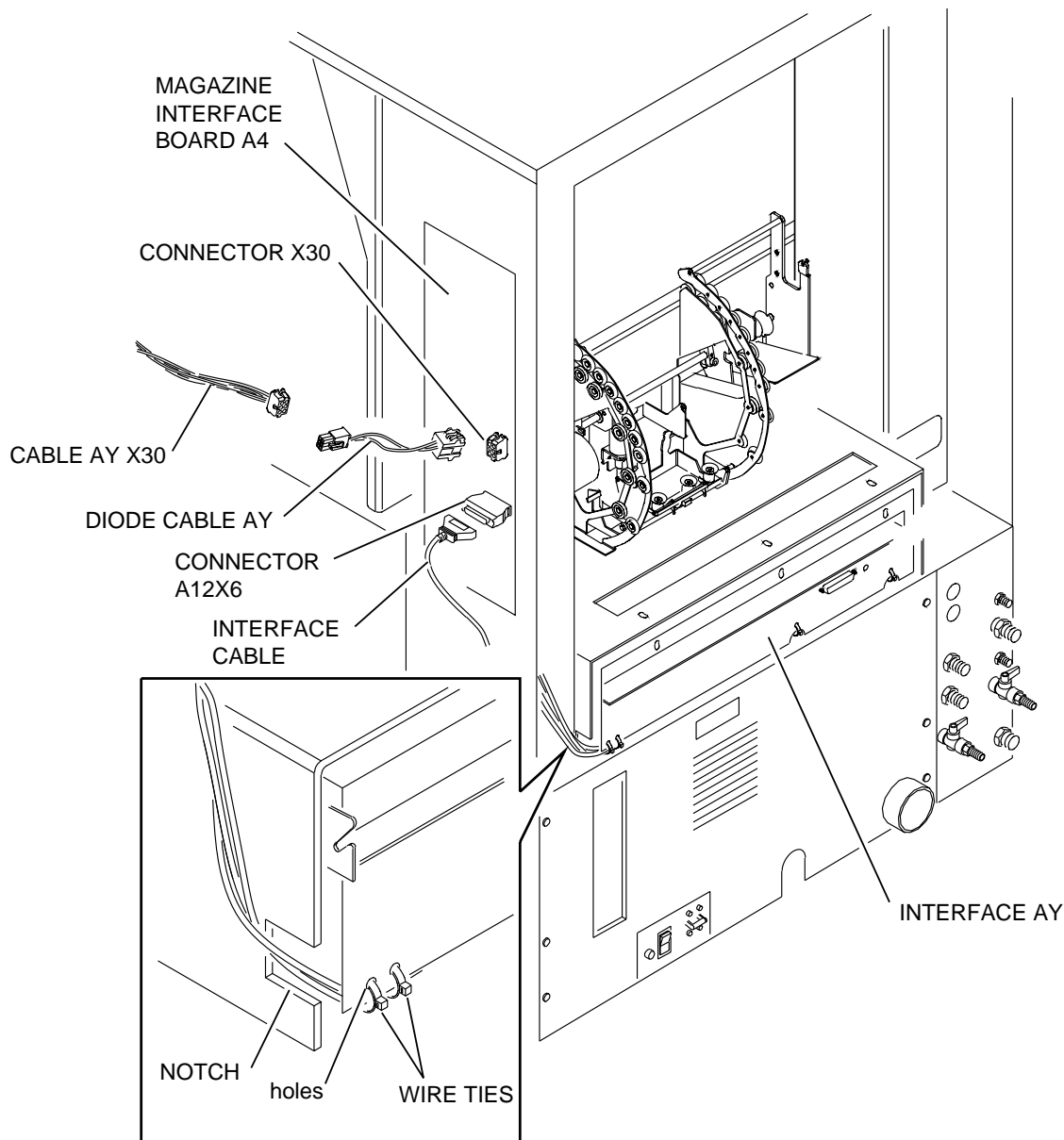
Possible damage from electrostatic discharge.



- [1] Disconnect the main power.
- [2] Rotate the 2 SCREWS 1/4 turn counterclockwise.
- [3] Remove and discard the BACK PANEL.
- [4] Open the FILM CHUTE.
- [5] Move the INTERFACE AY out 25.4 - 50.8 mm (1 - 2 in.).



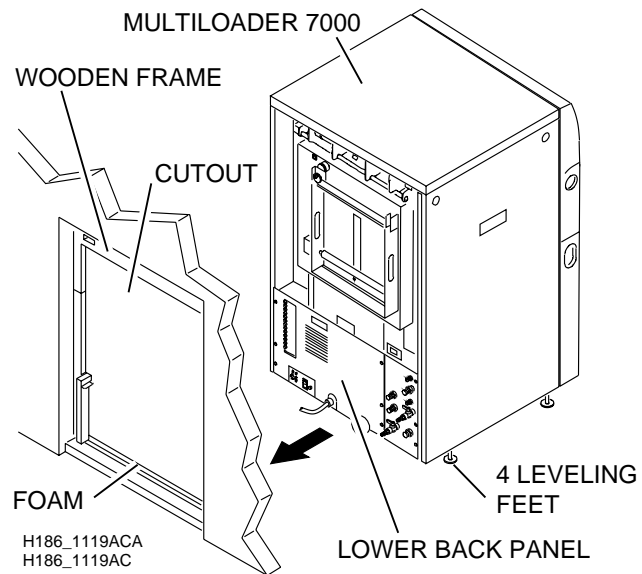
- [6] Remove the 2 SCREWS from the INTERFACE CONNECTOR.
- [7] Install the INTERFACE CONNECTOR to the SLOT in the INTERFACE AY. Use the SCREWS from [Step 6](#).
- [8] Install the GROUND WIRE SOCKET to the INTERFACE AY.



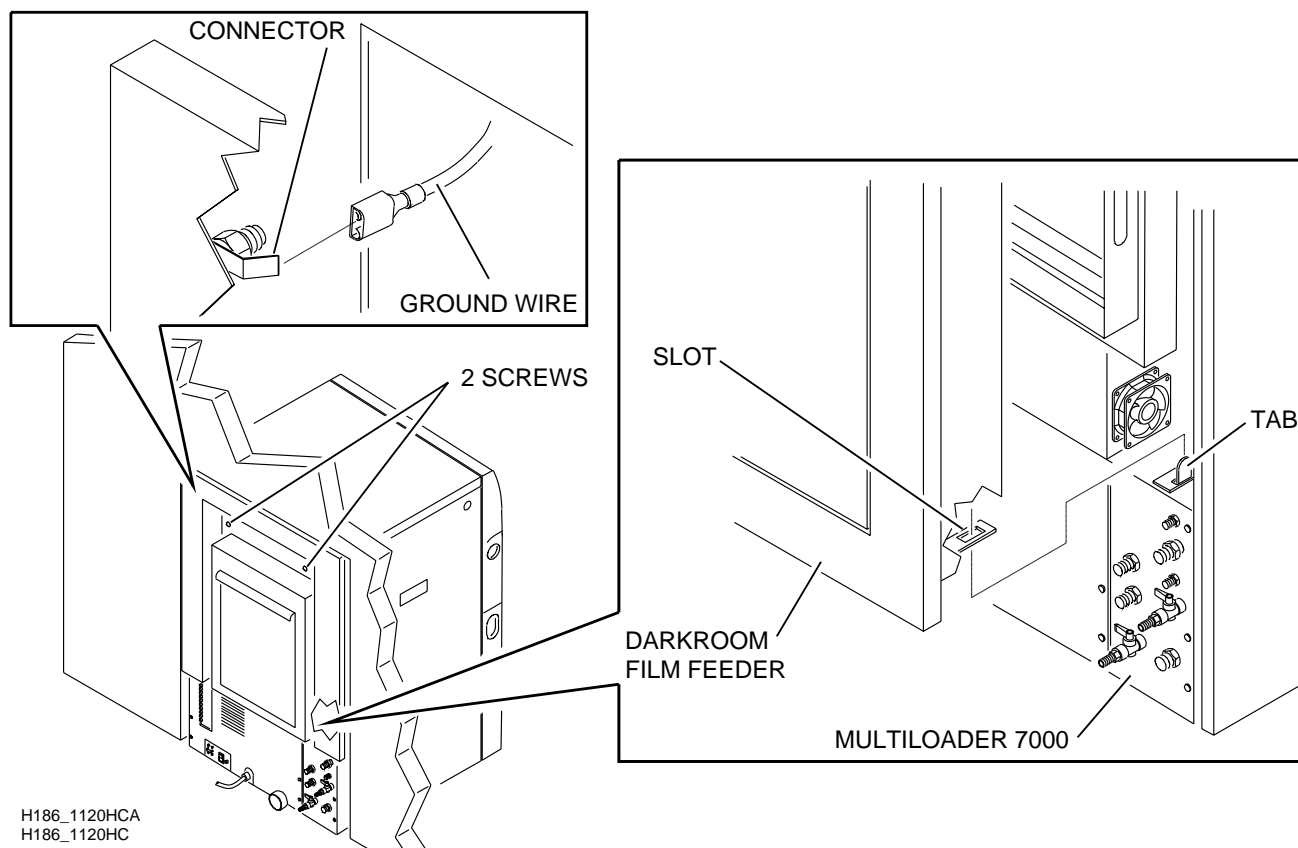
H186_1121DCA
H186_1121DC

- [9] Fasten the INTERFACE CABLE to the holes in the INTERFACE AY with WIRE TIES.
- [10] Make the NOTCH larger.
- [11] Move the INTERFACE AY back into the MULTILOADER 7000 and route the wires of the INTERFACE CABLE through the NOTCH.
- [12] Route the INTERFACE CABLE to the MAGAZINE INTERFACE BOARD A4.
- [13] Connect the INTERFACE CABLE to the CONNECTOR A12X6.
- [14] Disconnect the CABLE AY X30 from the MAGAZINE INTERFACE BOARD A4.
- [15] Connect the new DIODE CABLE AY to:
 - CABLE AY X30
 - CONNECTOR X30
- [16] Check that the DIODE CABLE AY and INTERFACE CABLE do not interfere with any moving parts. Use WIRE TIES if necessary.
- [17] Close the FILM CHUTE.
- [18] Check for correct operation of the MULTILOADER 7000.

Installing the DARKROOM FILM FEEDER

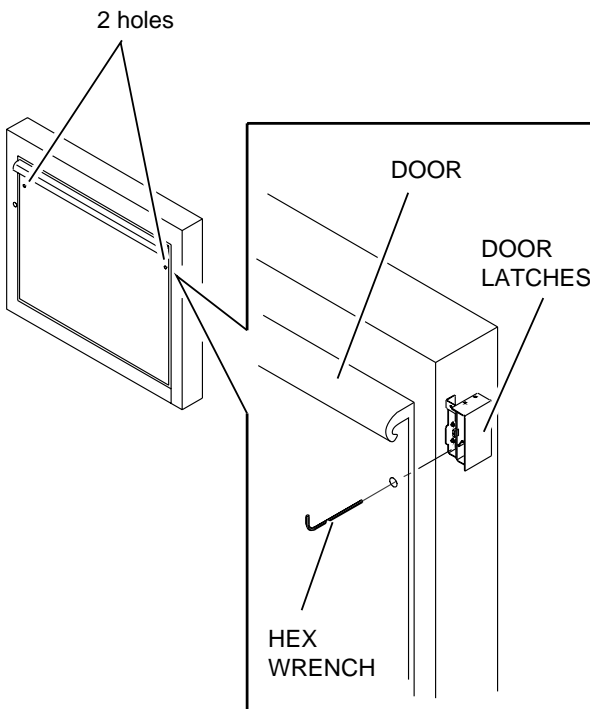


- [1] Move the MULTILOADER 7000 into the CUTOUT in the wall.
- [2] Level the MULTILOADER 7000. Use the 4 LEVELING FEET, see “Leveling the MULTILOADER 7000” on Page [46](#).
- [3] Check:
 - MULTILOADER 7000 is in the center of the WOODEN FRAME
 - distance from the right and left sides to the WOODEN FRAME is the same in the CUTOUT
 - FOAM is tight against the LOWER BACK PANEL of the MULTILOADER 7000
 - MULTILOADER is level



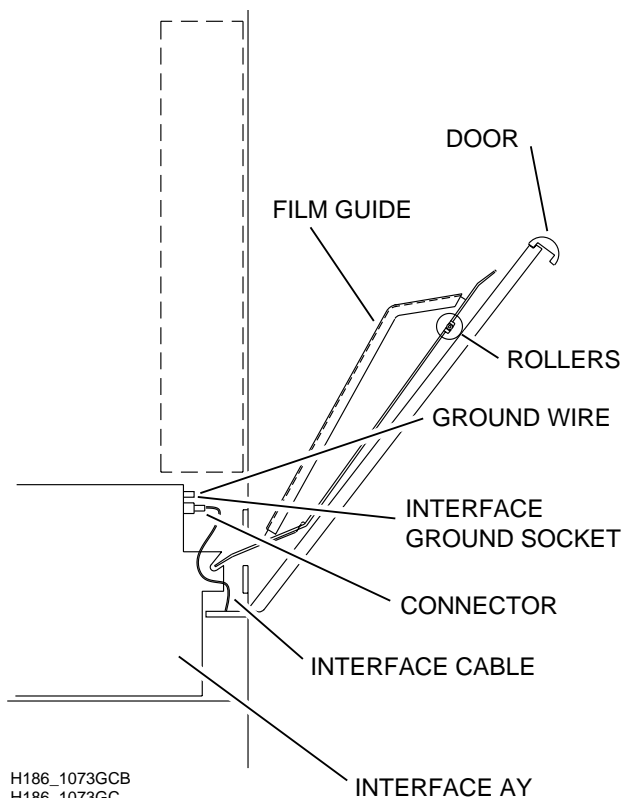
[4] Install the DARKROOM FILM FEEDER.

- (a) Engage the SLOTS on the bottom right side and the bottom left side of the DARKROOM FILM FEEDER into the TABS on the MULTILOADER 7000.
- (b) Connect the GROUND WIRE from the MULTILOADER 7000 to the CONNECTOR on the DARKROOM FILM FEEDER.
- (c) Move the top of the DARKROOM FILM FEEDER to align the 2 SCREWS to the MULTILOADER 7000.
- (d) Rotate the 2 SCREWS on the top of the DARKROOM FILM FEEDER 1/4 clockwise to fasten the DARKROOM FILM FEEDER to the MULTILOADER 7000.



H186_1072GCA
H186_1072GC

- [5]** Insert a 2 mm HEX WRENCH through the 2 holes on the DOOR of the DARKROOM FILM FEEDER to release the DOOR LATCHES and open the DOOR.



H186_1073GCB
H186_1073GC

- [6]** Connect:
- INTERFACE CABLE for the DARKROOM FILM FEEDER into the CONNECTOR
 - GROUND WIRE into the INTERFACE GROUND SOCKET
- [7]** Install the FILM GUIDE.
- [8]** Check:
- bottom edge of the FILM GUIDE is in the correct position on the INTERFACE AY
 - ROLLERS touch the DOOR for the DARKROOM FILM FEEDER
- [9]** Close the DOOR for the DARKROOM FILM FEEDER.

Completing the Installation

- [1] Check for light leaks. Use BLACK SEALANT 1C8002 and FOAM to block any light leaks.
- [2] Use a LAPTOP COMPUTER to set the parameters to enable the DARKROOM FILM FEEDER, DFF= 01. [See "Setting the Parameters" on Page 61.](#)

Checking for Correct Operation

- [1] Check that the DOOR on the DARKROOM FILM FEEDER is locked when the MULTILoader 7000 is de-energized.
- [2] Energize the MULTILoader 7000. The DOOR can be opened when the STATUS INDICATOR on the DARKROOM FILM FEEDER is green.
- [3] Open the DOOR on the DARKROOM FILM FEEDER and place a film into the DARKROOM FILM FEEDER.
- [4] Wait until a beep indicates that the trailing edge of the film is recognized by the DETECTOR ROLLERS.
- [5] Place another film into the DARKROOM FILM FEEDER.
- [6] Close the DOOR.
- [7] Check:
 - STATUS INDICATOR on the DARKROOM FILM FEEDER is red and the DOOR is locked
 - DISPLAY PANEL indicates that the DARKROOM FILM FEEDER is in use when film is in the DARKROOM FILM FEEDER and PROCESSOR
 - all films reach the RECEIVING BIN

Publication History

Publication Date	Publication No.	ECO No.	Changed Pages	File Name	Notes
16FEB01	5E9998	2665-001	All	ii3444_1_16feb01.fm	New Publication
12OCT01	5E9998	2665-027	All	5e9998.fm	Revised

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